

**ESA DECISIONS BY CLOSED-DOOR  
SETTLEMENT: SHORT-CHANGING  
SCIENCE, TRANSPARENCY, PRI-  
VATE PROPERTY, AND STATE AND  
LOCAL ECONOMIES**

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**OVERSIGHT HEARING**

BEFORE THE

COMMITTEE ON NATURAL RESOURCES  
U.S. HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

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Thursday, December 12, 2013

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**Serial No. 113-55**

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## **OVERSIGHT HEARING ON ESA DECISIONS BY CLOSED-DOOR SETTLEMENT: SHORT- CHANGING SCIENCE, TRANSPARENCY, PRIVATE PROPERTY, AND STATE AND LOCAL ECONOMIES**

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**Thursday, December 12, 2013  
U.S. House of Representatives  
Committee on Natural Resources  
Washington, DC**

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The committee met, pursuant to notice, at 10:04 a.m., in room 1324, Longworth House Office Building, Hon. Doc Hastings [Chairman of the committee] presiding.

Present: Representatives Hastings, Gohmert, Bishop, Lamborn, Fleming, McClintonck, Thompson, Lummis, Benishek, Duncan, Tipton, Labrador, Southerland, Flores, Daines, LaMalfa, McAllister, DeFazio, Holt, Grijalva, Costa, Huffman, Ruiz, Lowenthal, and Garcia.

Also present: Representatives Huelskamp, Womack, and Stewart.

The CHAIRMAN. The committee will come to order. The Committee on Natural Resources is meeting today to hear testimony on “ESA Decisions by Closed-Door Settlement: Short-Changing Science, Transparency, Private Property, State, and Local Economies.”

Now, before I begin our statements of the Chairman and Ranking Member and the witnesses, I ask unanimous consent that Mr. Womack, from Arkansas, Mr. Huelskamp, from Kansas, and Mr. Stewart, who, ironically, last time we met, was a member of the committee, but is now not a member of the committee, be allowed to sit on the committee and participate in these hearings.

[No response.]

The CHAIRMAN. And, without objection, so ordered.

Before I start my opening statement, I want to make an announcement of where we are, as we are winding down this first session of this Congress. This is the last hearing of the year. And, as those that are gathered here know, it is part of this committee’s continuing view of the Endangered Species Act, and how the law would be improved to prioritize recovery and science over lawsuits and closed-door settlements. This effort will continue in the near year, whereas my expectation that the committee will begin to advance common-sense ESA improvement legislation that will truly benefit species and the people.

Second, in September of this year, the committee completed its eighth hearing on renewing the Magnuson-Stevens Fishery Conservation and Management Act. I am announcing today that, within a week, a discussion draft of the reauthorization bill will be released for public review and input. This will be followed by a hearing in January on this legislation.

Other priority matters that this committee will address next year include protecting and expanding American hydropower; pursuing solutions to build more water storage; and a committed focus on restoring the promise made to our rural counties and schools by ensuring responsible, active management of our national forests.

Over the past year, great patience has been shown in conducting several oversight requests to the Interior Department and other agencies. What is sought is transparency information and accountability on decisions and actions made by the Department and other agencies. To date, the Interior Department's response has been far less than satisfactory, in my view. And in several instances, our questions appear to be met with deliberate slow-walking by their attorneys.

This is not acceptable. And, after many months of patient persistence, unless prompt compliance comes very soon, more direct steps will be taken to ensure that the Department fulfills its oversight obligations to this committee and to Congress.

Finally, it was my hope that a last mark-up of the year could occur this week. Regrettably, that wasn't possible for tomorrow. We will now look ahead to January to continue the hard work begun earlier this year. Over the past 12 months, this committee has continued its work in workhorse ways. And let me just give you some statistics.

The House has passed 50 bills from this committee, each with bipartisan support. This includes 41 bills passed under the suspension process, which means that each of these bills have broad, overwhelming, and bipartisan support in the House. More than 30 of these measures await action in the Senate. A number have had Senate hearings, and several have been reported from the Senate committees, and await action by the full Senate. And, between our work and the Senate, 10 bills have been signed into law by the President.

As we enter next year, it is my intent to continue to work to achieve enactment of common-sense solutions and legislation. Now, let me give you two examples. In January, it is my specific intent to advance legislation advocated by our colleague on the committee, Mr. Benishek, to resolve a long-standing situation in northern Michigan, by recognizing boundaries and establishing a Sleeping Bear Dunes Wilderness Area. Dr. Benishek has been working overtime to get this accomplished. Both he and his senior Senator Levin have this as a priority. And I am committed to working with both of them, because I believe it is possible to reach an appropriate resolution that accomplishes their collective goals.

There is also a public lands and wilderness legislation that our former colleague, Mr. Amodei, who was just made a member of the Appropriations Committee, has been tirelessly working to advance. Due to his persistent efforts, action will occur on that legislation also in January.

Now, I know that these are not easy issues. They require careful consideration and thoughtful action to ensure that they are done right. That is how we have approached our work on this committee, and we will continue to do so in January and next year.

I recognize my colleague from Michigan, Mr. Benishek.

Dr. BENISHEK. Thank you, Mr. Chairman. Chairman Hastings, I would like to thank you and Ranking Member DeFazio and the committee staff for your commitment to moving H.R. 163, the Sleeping Bear Dunes National Lakeshore Conservation and Recreation Act, forward next year.

As you know, this legislation was created by my constituents. They came together in response to a plan originally created by the National Park Service that they felt didn't meet the needs of the local area. So they came up with something better, a plan that guaranteed beach access, and guaranteed the needs of the local community.

Again, thank you for continuing to work with me and my constituents on this effort. I appreciate it.

The CHAIRMAN. I thank the gentleman, and I really want to congratulate his persistence on this issue. It is a difficult issue, as I know the gentleman knows.

With that, now I will recognize myself for my opening statement.

#### **STATEMENT OF THE HON. DOC HASTINGS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON**

The CHAIRMAN. Two years ago, the Obama administration's Interior Department signed settlement agreements with two litigious groups, in their words, "to make implementation of the ESA less complex, less contentious, and more effective."

In August, the Director of the Fish and Wildlife Service testified before this committee that "settlement agreements are often in the public's best interest because the Service has no effective legal defense to most deadline cases, and because settlement agreements facilitate issue resolution as a more expeditious and less costly alternative to litigation."

This, then, raises several questions. Are these ESA settlements, and others negotiated by Federal agencies behind closed doors with certain groups truly in the public's best interest? Have they made implementation of ESA less contentious and less costly? Are expeditious ESA listings allowing adequate involvement of States, local governments, and private landowners? Have they encouraged use of transparent and best science and commercial data in ESA decisions? Have they led to robust economic impact analyses of ESA listings on communities? Have they discouraged litigation? These are legitimate questions.

Here are some of the facts of what these settlements have produced in the 2 years. The current number of proposed and final ESA listings has increased by 210, and the amount of proposed and final critical habitat has increased by more than 2 million acres, and that, those settlements, potentially affect more than 2,000 river miles nationwide.

The Interior Department has accepted 85 percent of the new listing petitions it received, including petitions seeking more than 140 new listings to the Fish and Wildlife Service, and the National Marine Service. Selective use of ESA data in science and peer review conflicts of interest has clouded the Obama administration's adherence to data quality and transparency requirements.

New executive orders and regulations are reducing robust economic impact analyses, and could alter how critical habitat is analyzed.

And litigants to the settlements are continuing to file lawsuits. In just the past year, the Center for Biological Diversity has threatened or filed over a dozen new lawsuits against the Interior Department, either because they didn't list fast enough, or because the Center for Biological Diversity didn't agree with Interior's decision not to list.

Undoubtedly, of course, some believe cramming hundreds of obscure species into the ESA list under deadlines and blocking off huge swaths of land because of the settlements, some might call those successes. But many areas of the country tell a different story of how these policies are impacting their communities, their economies, and, ultimately, the species considered.

While the Service recently endorsed a plan submitted by Texas, Oklahoma, Kansas, Colorado, and New Mexico to conserve the Lesser Prairie Chicken, there is little assurance that the Service won't list the prairie chicken anyway. The Service has refused requests by dozens of counties and other interests for additional time to factor new data and review other plans, insisting it must stick to a self-imposed settlement deadline of March 2014.

In the coming months, according to settlement-imposed deadlines, the Bureau of Land Management and Forest Service will submit plans covering over 250,000 square miles in 11 Western States to the Service to decide whether they are adequate to avoid listing of the Greater sage grouse. These plans are based on seriously flawed Federal technical documents that lack transparency. Nevertheless, the Service has charged ahead with proposing listing of sage grouse in portions of Nevada, California, Colorado and Utah.

Over 2,000 river miles in a dozen Midwestern and Southern States are likely to be impacted as a result of the Service's listing of mussels and other fish species. These listings will impact over 40 percent of Arkansas alone, including agriculture, timber, and energy producers, and small businesses.

In my home State of Washington, listing is imminent for a plant called the bladderpod, although DNA shows it is not warranted, and proposed gopher listings are impacting local economies and one of the greatest military installations in the world in my State. These are some impacts from the settlements. The listing-by-litigation approach is not working for people and species.

So, I look forward to hearing from our witnesses to continue a frank and open discussion on how to improve the law.

[The prepared statement of Mr. Hastings follows:]

PREPARED STATEMENT OF THE HONORABLE DOC HASTINGS, CHAIRMAN, COMMITTEE ON NATURAL RESOURCES

Two years ago, the Obama administration's Interior Department signed settlement agreements with two litigious groups, in their words, "to make implementation of the ESA less complex, less contentious and more effective."

In August, the Director of the Fish and Wildlife Service testified before this committee that "settlement agreements are often in the public's best interest because [the Service] has no effective legal defense to most deadline cases, and because settlement agreements facilitate issue resolution as a more expeditious and less costly alternative to litigation."

This raises several questions: are these ESA settlements, and others negotiated by Federal agencies behind closed doors with certain groups, truly in the public's "best interest?" Have they made implementation of ESA "less contentious" and "less costly?" Are "expeditious" ESA listings allowing adequate involvement of States, local governments, and private landowners or aiding efforts to avoid listings or to delist species? Have they encouraged use of transparent and best science and commercial data in ESA decisions? Have they led to robust economic impact analyses of ESA listings on communities? Have they discouraged litigation?

Here are some facts of what these settlements have produced in just 2 years:

- The current number of proposed and final ESA listings has increased by 210, and the amount of proposed and final critical habitat has increased by more than 2 million acres and more than 2,000 river miles nationwide.
- The Interior Department has accepted 85 percent of the new listing petitions it received, including petitions seeking more than 140 new listings to the Fish and Wildlife Service, and the National Marine Fisheries Service.
- Selective use of ESA data and science and peer review conflicts of interest has clouded the Obama administration's adherence to data quality and transparency requirements.
- New executive orders and regulations are reducing robust economic impact analyses, and could alter how critical habitat is analyzed.
- Litigants to the settlements are continuing to file lawsuits. In just the past year, the Center for Biological Diversity has threatened or filed over a dozen new lawsuits against the Interior Department, either because they didn't list fast enough, or because the Center for Biological Diversity didn't agree with Interior's decision not to list.

Undoubtedly, some believe cramming hundreds of obscure species onto the ESA list under deadlines and blocking off huge swaths of land because of the settlements are "successes," but many areas of the country tell a different account of how these policies are impacting their communities, their economies, and ultimately, the species.

While the Service recently "endorsed" a plan submitted by Texas, Oklahoma, Kansas, Colorado and New Mexico to conserve the Lesser Prairie Chicken, there is little assurance that the Service won't list the prairie chicken anyway. The Service has refused requests by dozens of counties and other interests for additional time to factor new data and review other plans, insisting it must stick to its self-imposed settlement deadline of March 2014.

In coming months, according to settlement-imposed deadlines, the Bureau of Land Management and Forest Service will submit plans covering over 250,000 square miles in 11 Western States to the Service to decide whether they are adequate to avoid listing of the Greater Sage Grouse. These plans are based on seriously flawed Federal technical documents that lack transparency. Nevertheless, the Service has charged ahead with proposing listing of sage grouse in portions of Nevada, California, Colorado and Utah.

Over 2,000 river miles in a dozen Midwestern and Southern States are likely to be impacted as a result of the Service's listing of mussels and other fish species. These listings will impact over 40 percent of Arkansas alone, including agriculture, timber, and energy producers, and other small businesses.

In Washington, listing is imminent for a plant called the bladderpod, though DNA shows it is not warranted, and proposed gopher listings are impacting local economies and one of the largest military installations in the world.

These are some impacts from the settlements. The "listing-by-litigation" approach is not working for people and species. I look forward to hearing from our witnesses and to continuing a frank and open discussion on how to improve this law.

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The CHAIRMAN. And before I recognize the Ranking Member for his opening statement, I want to recognize the newest member of our committee, Mr. Vance McAllister, who just walked in—timing is everything, you notice. I welcome him to the committee. His background, and coming from the great State of Louisiana, I know he will add a great deal to our deliberations. So welcome, Mr. McAllister, to the committee.

And, with that, I recognize the Ranking Member, Mr. DeFazio.

**STATEMENT OF THE HON. PETER A. DEFAZIO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON**

Mr. DEFAZIO. Thank you, Mr. Chairman. I am interested to hear there will be a proposal on reauthorizing Magnuson available in a week. I would hope perhaps, if your draft is near done, you might share it. We haven't seen it. Because I think this is something that can be worked out on a bipartisan basis, and doesn't need to be one side of the aisle, and doesn't need to be contentious. So I am hopeful that, before it is released to the general public, that we might have an opportunity to look at it.

I have talked with the Secretary of the Interior. She has expressed a willingness to take a phone call from you at any time, to provide any specific information that is necessary. The Department has been basically, devoting a lot of resources to tens of thousands of pages of documents that, as far as I can tell, no one bothers to read, once they have been brought down here to the Hill. They are all in a closet somewhere.

I don't know what the objective is. If we have some very specific objectives or concerns regarding the Interior Department and lack of transparency on a particular issue, I am sure on a bipartisan basis we can pursue those things. But to mire Interior down is actually going to slow them down in many things that we agree upon that we want to get done out there, the myriad activities that Interior is involved in. So, I think that they have been more than forthcoming. And if there is anything in particular that reaches a conclusion or a point that isn't just some sort of giant fishing expedition for tens of thousands of pages of documents that no one is going to read or compile, then I am sure we could get that. Again, I think we could do these things better.

And then, to the case in point, which is Endangered Species Act reform, I have been on the committee 27 years now, as of a few weeks from now. And over that time we have visited a couple of times meaningful updates to the Endangered Species Act. Republican Wayne Gilchrest from the Eastern Shore of Maryland had a bipartisan proposal which I supported some number of years ago. George Miller at one point had a bipartisan proposal, which I supported. There are ways to continue the objectives of the Endangered Species Act that would be less time consuming, less litigious, less burdensome, particularly as we move more toward looking at larger landscape management and ecosystem approaches, as is being done with the Lesser Prairie Chicken in a cooperative mode with a number of States. And I would hope that those are the kind of reforms we are going to look at in the law.

Listing species one at a time, sometimes in conflict, one with another—most famously, I think, the Kootenai sturgeon—in an area that needs certain water types of flows to spawn. But when those flows are created it creates conflicts for other endangered species downstream. We have got to work these things out in a way that is a more general ecosystem-based approach to management, so we don't create inherent conflicts and imponderables, in terms of accomplishing the goals of the act, which I would hope we all still share. We don't want to see species go extinct.

So, this is the sixth hearing on this issue. I am hopeful that, in a collaborative way, we can look at some reforms that will make

the act work better to achieve the goals that were set forth 40 years ago. It is a 40-year-old law. And we do need to recognize more modern science and different approaches to accomplish those goals. Thank you, Mr. Chairman.

The CHAIRMAN. Will the gentleman yield before his time runs out? Let me just quickly respond to the oversight aspect that I had mentioned in my statement and the gentleman responded to.

I welcome Secretary Jewell—and we had a meeting and she said, "Give me a call on these things," and I welcome that. And, frankly, I thought that would be a page-turner in trying to get information. It is very hard to come to conclusions when you don't get the information. That is why we are asking for the information.

But I have to say to the gentleman this will obviously be a work in progress. But after that meeting with Secretary Jewell, and after giving her a heads up on information that she requested, we still haven't been getting it. And there is always speculation about what we are looking for, but when we are asking for something specific, if we get that then we can make a determination.

So I just wanted to respond briefly. This is a work in progress, and I would certainly welcome the gentleman, as we move forward. I thank the gentleman for yielding.

Mr. DEFAZIO. Well, if I could reclaim my time, even though it has expired, if there is a particular specific request or objective that I am—I would be happy to be made aware of it, and also help expedite things with Interior. But the feeling is—so far they have gotten 50,000 pages of documents, and I don't know who has reviewed those 50,000 pages, and what it is we need in addition.

So, I would like to work together on that and relieve them of some burden so that she can focus on other issues that are of mutual concern. So thank you, Mr. Chairman.

The CHAIRMAN. I will take that request in the spirit that it is given, and hopefully we can get what our desired outcome is.

Now I want to welcome the first panel in front of us. And let me go through briefly and recognize the panelists. And then we will have individual introductions. We have, first, Mr. Jeff Sikes, who is a Legislative Director for the Association of Washington Counties, located in Little Rock, Arkansas; Mr. Greg Foley, who is the Executive Director of the Division of Conservation for the Kansas Department of Agriculture in Topeka, Kansas; Dr. Joe Roman, from the Rubenstein School of Environment and Natural Resources at the University of Vermont in Burlington, Vermont; Mr. Brock Evans, President of the Endangered Species Coalition, based here, in Washington, DC; Mr. Carl Albrecht, CEO and General Manager of Garkane Energy, located in Loa, Utah; and Megan Maxwell, an independent biologist from Broomfield, Colorado.

Before we start the introductions, let me explain how the timing light works there. You all submitted written testimony to us, and that will all be part of the record. And so I would ask you to keep your oral remarks to within 5 minutes, and that is what that timer is in front of you. Now, there are three lights on the timer: green light, yellow light, and red light. When the green light is going, that means that you are doing wonderfully well. When the yellow light comes on, it means you have a minute to go before the 5 min-

utes is over. And when the red light comes on—well, try not to get to the red light, if I could just say it that way.

So, with that, I want to thank you. And I will recognize now our colleague from Arkansas, Mr. Womack, for the purposes of an introduction. Mr. Womack?

Mr. DEFAZIO. Mr. Chairman?

The CHAIRMAN. Yes?

Mr. DEFAZIO. If I could, just for one second?

The CHAIRMAN. Go ahead.

Mr. DEFAZIO. There is a hearing in Aviation, which—I have a couple of pressing questions—I am going to head to. No disrespect to the witnesses. I have read your testimony.

And I will be back with some questions, Mr. Chairman, but I do have to get down there for a bit. So thank you.

The CHAIRMAN. I recognize that. There are always conflicts going on. And so you don't need my excuse, but you are OK, you can go.

Mr. Womack is recognized.

Mr. WOMACK. Thank you, Mr. Chairman. I, first of all, want to personally thank you for holding a hearing on the impact these ESA designations could have on Arkansans and citizens across America.

The critical habitat designation for rabbitsfoot mussels and neosho muckets will affect nearly half of my State's surface area and, simply put, jeopardizes the livelihood of Arkansans. Today I am proud to say that every member of the Arkansas delegation is well versed on the issue, thanks in large part to Jeff Sikes, who I am proud to introduce to this distinguished committee this morning.

As the Association of Arkansas Counties' Legislative Director, Jeff sounded the alarm on the true and possibly devastating impact this critical habitat designation will have on a startling number of Arkansans and their communities. Jeff was also responsible for building the broad coalition of leaders throughout Arkansas who are committed to standing up for the rights of the people and businesses of our great State.

I look forward to Jeff's testimony today. For while he is an expert of the science and legality of the designation, he also speaks with common sense and is acutely aware of the designation's real-life implications.

Mr. Chairman, before I yield back, I have in my possession a letter from Arkansas Governor Mike Beebe that echoes our concerns, as well. And I would like to seek unanimous consent to enter his letter into the record for today's proceedings.

[No response.]

The CHAIRMAN. Without objection, that letter will be part of the record.

[The letter from Governor Beebe submitted by Mr. Womack for the record follows:]

## LETTER SUBMITTED FOR THE RECORD FROM MIKE BEEBE

GOVERNOR,  
STATE OF ARKANSAS,  
DECEMBER 10, 2013.

The Honorable SALLY JEWELL,  
*Secretary,*  
*U.S. Department of the Interior,*  
*1849 C Street, NW,*  
*Washington, DC 20240.*

Re: Proposed Critical Habitat Designation, Docket ID No. FWS-R4-ES-2013-0007

DEAR MADAME SECRETARY:

I am writing in regard to the U.S. Fish and Wildlife Service's proposed critical habitat designation for the neosho mucket and rabbitsfoot mussels. The proposed rule would designate 769.2 river miles as critical habitat. The targeted watershed covers approximately 42 percent of Arkansas's entire geographic area. I am concerned about the adverse impact this designation, as recommended, could have, not only on the 31 counties directly concerned, but on my entire State. More than 90 percent of the property through which the affected river and stream flow is privately owned. That means thousands of Arkansas farmers, livestock producers, business owners, and individuals will be negatively impacted.

A coalition of well-respected Arkansans as entities, led by the Association of Arkansas Counties [AAC], representing a wide range of public and private stakeholders, filed an official comment with the Service on October 28, 2013. Based on sound scientific research, the coalition recommends that the Service reduce its proposed critical habitat area by about 38 percent. The group is not recommending the elimination of critical habitat, simply a more realistic designation. The coalition also points out that the Service's economic analysis, based solely on agency-to-agency interaction, does not weigh the substantial private costs to be incurred. It drastically underestimates the potentially devastating effect the change could have on numerous small businesses and industries. Many, including agriculture, are vital economic drivers in our State.

I support the recommendations made by the AAC, and I urge you to reconsider this sweeping designation that will be a hindrance making life difficult for so many Arkansans. I am confident that a narrower critical habitat designation can be reached—one that will adequately protect these species, without unnecessarily jeopardizing the livelihoods of many Arkansans. Thank you for your consideration.

Sincerely,

MIKE BEEBE.

Mr. WOMACK. And with that, Mr. Chairman, again, our thanks for holding the hearing. And I yield back my time.

The CHAIRMAN. All right. Mr. Sikes, you are recognized for 5 minutes. Thank you very much.

**STATEMENT OF JEFF SIKES, LEGISLATIVE DIRECTOR, ASSOCIATION OF ARKANSAS COUNTIES [AAC], LITTLE ROCK, ARKANSAS**

Mr. SIKES. Chairman Hastings, well, was Ranking Member DeFazio, and committee members, good morning. I am Jeff Sikes, Legislative Director for the Association of Arkansas Counties. I appreciate the honor and the privilege of testifying here today on a matter of great concern in my home State, namely the potential listing of over 40 species under the Endangered Species Act with a required designation of critical habitat for each. As I speak to you today, I represent not only the 75 counties of Arkansas, but also a number of public and private stakeholders who have come together to push back against this historic expansion of the number of listed species under the Endangered Species Act.

This potential expansion—if we had all 40 listed, it quite literally could cover our entire State with critical habitat units. Now, the groups that I represent, I have got them in my comments, but they are the Arkansas State Chamber of Commerce, the Arkansas Environmental Federation, Farm Bureau, timber producers, et cetera. All stakeholders are going to be impacted greatly by this.

Now, as we speak, Arkansas has actually submitted comments on two of these species, the neosho mucket and the rabbitsfoot mussel, who, combined, have this potential of putting 42 percent of our State's watershed into critical habitat.

Now, for the record, we do not oppose the listing of candidate species, so long as that listing is supported by good science. However, we heartily oppose the designation of critical habitat unless absolutely necessary. As I am sure most Members know, it is the designation of critical habitat that can give the green light to a devastating environmental litigation.

Now, currently, we in the South and Southeast find ourselves dealing with the results of a settlement between the Department of Justice and various environmental groups, and it is a court order mediation that was completely secret in nature until the results of it were quietly rolled out. And we only found out about this, the settlement, after a business associate out West who had some experience with the Endangered Species Act alerted me to the settlement and, more importantly, actually educated me, took the time to educate me, what the ramifications were of this settlement. And if we hadn't had that, no one in the South, or no one in Arkansas, no one I have spoken to in the South or Southeast would have had any idea that this was going on. Clearly, that process is broken, and I think we need to fix it.

One of the things I would suggest is that in these cases where you do have a settlement, or you do have a lawsuit, that the education provided by the Service regarding those—that settlement be proactive, better rounded, and not limited to waiting for some request from land owners who can't make the request if they don't know what is going on.

And then, currently, it is the position, the official position of the Service, that a land owner has no reason to fear a listing of critical habitat or a critical habitat designation, unless there is some sort of Federal nexus, unless they take some money from the Federal Government. And that is true, as far as it goes. But the reality is the real devastating impact of ESA is third-party litigation. And that has devastated the West, and now it is set to devastate the South and Southeast. And our people in Arkansas will just never know what hit them until they wake up one day and they can't use their property any more for what they bought it for.

And this leads me to my final point. We absolutely must change the way the Service performs its economic analysis prior to designation of critical habitat. I am not an economist, but as I understand it the Service currently utilizes an incremental model as opposed to a more inclusive cumulative model to determine the economic impact. And the upshot of this method is it only measures the cost of government agencies talking to each other, consulting with one another during the 20-year life of the critical habitat designation. That is just way off.

To give you an example of what I—well, the upshot of that is what it results in is a ridiculously low and misleading economic analysis. And when you look at—whoever would read that would just be completely misled as to what the real effects were going to be. And to give you an example of what I mean, their economic analysis for the neosho mucket and rabbitsfoot mussel was \$220,000 a year, spread across 12 States, \$20,000 a year each for 20 years for \$4.4 million. Our economist, who teaches at the University of Arkansas, projected \$20 to \$50 million, just in Arkansas alone during that same period. That has to be fixed. It can be fixed by a rule change, not a law. And we would hope that you all would take that up.

[The prepared statement of Mr. Sikes follows:]

PREPARED STATEMENT OF JEFF SIKES, LEGISLATIVE DIRECTOR, ASSOCIATION OF ARKANSAS COUNTIES [AAC], LITTLE ROCK, ARKANSAS

Chairman Hastings, Ranking Member DeFazio and committee members good morning, I am Jeff Sikes, Legislative Director for the Association of Arkansas Counties. I appreciate the honor and privilege of testifying here today on a matter of great concern in my home State, namely the potential listing of over 40 species under the Endangered Species Act [ESA] with a required designation of critical habitat for each.

As I speak to you today, I represent not only the 75 counties of Arkansas, but also a number of public and private stakeholders who have come together to push back against this historic number of potential listings and designation of critical habitat that has put our State, and many States in the South, in danger of becoming, quite literally, covered by critical habitat units. These stakeholders include: Arkansas State Chamber of Commerce; Arkansas Environmental Federation; Arkansas Association of Conservation Districts; Arkansas Forestry Association; Arkansas Farm Bureau; Arkansas Timber Producers Association; Arkansas Poultry Federation; Arkansas Independent Producers and Royalty Owners; Agriculture Council of Arkansas; Camp Ozark; Arkansas Cattlemen's Association; Energy and Environmental Alliance of Arkansas; and Cargill Foods, Inc.

As we speak, Arkansas has submitted comments on two of these species, the neosho mucket and the rabbitsfoot mussel, who, combined, have the potential of putting 42 percent of our State's watershed into critical habitat.

While we do not oppose the listing of candidate species, whose listings are supported by good science, we heartily oppose the designation of critical habitat unless absolutely necessary. As I'm sure most of the Members know it is the designation of critical habitat that can give the green light to devastating environmental litigation. In fact as far back as 1989 Donald Carr, former acting Assistant Attorney General for the Land and Natural Resources Division, stated "Critical Habitat does have advocacy value. It helps the prosecutor get rid of showing the steps to jeopardy."

In the current situation, we in the South find ourselves dealing with the results of a settlement between Department of Justice attorneys and various environmental groups. This settlement was the result of a court-ordered mediation that was completely secret in nature until the results were quietly rolled out. We only found out about this settlement because of my relationship with a gentleman from out west, who along with being an expert on the Secure Rural Schools and Community Self-Determination Act reauthorization issue, was also an expert in ESA matters. Were it not for his alerting me, and, just as importantly, educating me as to why I should be alerted, absolutely no one in Arkansas or indeed much of the South, would've had any idea they should be alarmed or have any further idea as to what they should do about it. Clearly, this process of "sue and settle" is broken and should be addressed. More importantly, the public outreach and information provided by the U.S. Fish and Wildlife Service [FWS], in the wake of these settlements, should be greatly increased so as to avoid future catastrophes for ill-informed business and land owners.

I would suggest that future education provided by the FWS be better-rounded, proactive and not limited to waiting for a request which cannot happen if business or landowner has no knowledge the action is occurring. Currently, it is the official position of the FWS that a landowner has no reason to fear an ESA listing or critical habitat designation unless there is some sort of nexus between the landowner and the Federal Government—and this is true as far as it goes. It completely

misses, however, the most probable and most potentially devastating impact of the ESA and here I am referring to third party litigation. This litigation has devastated the West and now appears prepared to wreak the same sort of havoc in the South/Southeast. There should be no attempts, by the FWS, to minimize the impacts that may be visited upon the landowners, most of whom work there tails off every day, to support their families and pay taxes.

This leads me to my final point. We absolutely must change the way the FWS performs its Economic Analysis prior to the designation of critical habitat. I am not an economist; however, as I understand it the service currently utilizes an incremental model, as opposed to more inclusive cumulative model (co-extensive), to determine the economic impact of declaring critical habitat. The upshot of this method is that it only measures the costs of agencies talking to each other during section 7 consultations. This is guaranteed, indeed designed, to provide an analysis that is ridiculously low and certain to mislead the reader as to the real human and economic impact of declaring critical habitat.

To give you an example of what I mean, the service's economic assessment regarding the declaration of critical habitat for the Neosho Mucket and Rabbitsfoot Muscles provides for, a \$220,000 per year impact spread across 12 States, over a 20 year period, for a total projected impact of \$4.4 million. Our Economist, Dr. Jim Metzger, Professor of Economics, University of Arkansas in Little Rock, in the briefest of snapshots, and excluding third party litigation, projected the loss to Arkansas alone to be \$20-\$50 million. The good news, if there is any, is that it would not require an act of Congress but a change with Service regulations (73 FR 33052) and the Office of Management and Budget [OMB] guidelines for best practices for the conduct of economic analysis of Federal regulations.

In closing, we must attempt to slow down "sue and settle" activities and, when a loss or settlement is inevitable, educate the affected landowners as to all of their ramifications. Finally, we should work to change the rule on economic analysis to one that accurately reflects the real economic and human costs of the designation of critical habitat.

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The CHAIRMAN. Thank you very much, Mr. Sikes, for your testimony.

I now recognize Mr. Greg Foley, Executive Director of the Division of Conservation for the Kansas Department of Agriculture, located in Topeka, Kansas.

Mr. Foley, you are recognized for 5 minutes.

**STATEMENT OF GREG A. FOLEY, EXECUTIVE DIRECTOR, DIVISION OF CONSERVATION, KANSAS DEPARTMENT OF AGRICULTURE, TOPEKA, KANSAS**

Mr. FOLEY. Thank you, Mr. Chairman. Good morning. Mr. Chairman, members of the committee, my name is Greg Foley. As the Director of the Division of Conservation, Department of Agriculture, I appreciate the opportunity and the invitation to appear before the committee and express thoughts, concerns, and impacts associated with the Endangered Species Act listing of the Lesser Prairie Chicken.

Agriculture is our largest economic driver in Kansas, valued at more than \$33 billion annually. We have more than 50 million acres of land, providing agricultural jobs for more than 400,000 people. Agriculture is not just growing crops and raising animals, but it includes robust sectors of renewable energy, food processing, research, and education, and agribusiness. Kansas has very few public lands, and has a private ownership rate of approximately 98 percent.

How are we being proactive to protect the Lesser Prairie Chicken? There are five States that have areas currently that are occupied by the Lesser Prairie Chicken, Kansas being one of those States. There are numerous voluntary plans for conservation ac-

tions that have been developed by stakeholders in our region. The Kansas Department of Wildlife and Parks and Tourism, one of our State agencies, has played an integral role in the development of one of those such plans that was actually endorsed—that the Chairman spoke about—just a couple days ago by the U.S. Fish and Wildlife Service.

Additional stakeholder groups have developed strategies, as well. We are open to the multiple voluntary strategies and plans for species recovery, and believe that the Service should expedite consideration of all plans to ensure the oil and gas industry and agricultural producers have best options available to them to prevent a listing. I have attached a slide presentation that—the opening slide is on the screen there—that identifies some tools, maps, conservation priority areas, the conservation reserve program status in the Lesser Prairie Chicken-occupied range, acres enrolled. It has a lot of components, and I would encourage you to take a look through that at your leisure.

Mr. Chairman, the Department of Agriculture, in our division, we have a large stakeholder group. We have 105 counties in Kansas, a lot of volunteers. They work side by side with thousands of other farmers and ranchers, as natural resource conservationists, to protect soil, water, air, plants, and animals. These leaders have voiced some fears and impacts in the event of a listing.

Common questions—and I wrote this testimony as the issues or fears or concerns and some of the information I read in the last couple of days, maybe they are prophecies, but I will leave that to be determined—some of those questions include, “Will I be able to take my CRP out of the program, if the Lesser Chicken is listed?”, “Will I be able to build new fences, outbuildings, grain bins?”, “Why would the Federal Government extend my current CRP contract if a different Federal agency prevents them from putting land back in to its prior use as a row crop production?”, “If returning CRP back to crop land is prohibited, and the land is not re-enrolled in the program, will I be prohibited from haying or grazing during primary nesting seasons?”, “Will I be able to hay or graze existing pasture or range land?” That is just the start of the list.

These landowner questions communicate a significant message of the potential for loss of current enrolled CRP acres. The cause-and-effect relationship from a regulatory action may reduce the ability of USDA and State efforts to maintain and re-enroll existing habitat, enroll new habitat acres, and to utilize other voluntary incentive-based programs to assist the recovery of the Lesser Chicken. We believe current Kansas conservation efforts are an indication of why Kansas has the largest number of acres and the number of birds within the occupied range.

Kansas has experienced three consecutive years of drought. In my review of the Lesser Chicken, it looks like there are three basic requirements or principles to ensure the existence of the species: food, nesting, and brood-rearing habitat, and water. We would challenge utilizing existing programs within USDA to add other components such as the livestock water supply, dealing with drought-related issues, water is obviously an issue that we have endured. Even drought can be planned and managed for with voluntary incentive-based programs.

In closing, I would like to highlight a handful of points that are potential impacts and issues in Kansas agriculture and the Lesser Prairie Chicken, if a listing were to occur: the ability to continue food and fiber production in the affected area; the potential of expanding the footprint or buffer zone of the current occupied range, arbitrarily adding tens of thousands of acres under the control of the U.S. Fish and Wildlife Service; reduction of personal property rights.

Agriculture is our economic driver. Negative impacts means lost jobs, population, assurances, predictability, State programs, and many other bureaucratic terms of protection are feared due to loopholes, complex rules, and hidden agendas.

Mr. Chairman, members of the committee, thank you for the opportunity to testify before you to touch a few bases and address written testimony, as well. We request voluntary solutions in lieu of regulatory controls. Thank you, Mr. Chairman.

[The prepared statement of Mr. Foley follows:]

PREPARED STATEMENT OF GREG A. FOLEY, EXECUTIVE DIRECTOR, DIVISION OF CONSERVATION, KANSAS DEPARTMENT OF AGRICULTURE, TOPEKA, KANSAS

Good morning, Mr. Chairman, members of the committee. My name is Greg Foley and I am the Executive Director of the Division of Conservation, Kansas Department of Agriculture. I want to thank you for the invitation to appear before the committee to express thoughts, concerns and impacts associated with an Endangered Species Act [ESA] listing of the Lesser Prairie Chicken [LPC].

I work closely with the recently appointed Kansas Secretary of Agriculture, Jackie McClaskey, and am appearing today to convey concerns that impact Kansas Agriculture. Agriculture is the largest economic driver in Kansas, valued at more than \$33 billion annually. In Kansas, there are 52,320,102 acres of land that provides jobs for more than 427,000 people. Agriculture in Kansas is not just about growing crops and raising animals, but also includes robust sectors of renewable energy production, food processing, research and education, agribusiness and more. Kansas farmers and ranchers are feeding the world. In 2011, Kansas exported nearly \$5.3 billion in agricultural products. Kansas has very few public lands and has a private ownership rate of approximately 98 percent.

How is Kansas being proactive to protect the LPC? There are five States that have areas that are currently occupied by the LPC. There are numerous plans for voluntary conservation actions that have been developed by stakeholders in the region. The Kansas Wildlife, Parks and Tourism has played an integral role in the development of a multi-state Range-Wide Conservation Plan coordinated through the Western Association of Fish and Wildlife agencies. These conservation programs being implemented that have resulted in positive effect on LPC populations or are expected to create those benefits. Additional Kansas stakeholder groups have also developed strategies as well. We are open to multiple voluntary strategies and plans for species recovery and believe that the Service should expedite consideration of all plans to ensure that the oil and gas industry and agricultural producers have the best options available to them to prevent a listing or, in the event of a listing to facilitate mitigation and conservation activities. I have **attached** a slide presentation outlining some of those efforts and accomplishments in Kansas. The presentation includes Federal program tools, maps of conservation priority areas, CRP status in the LPC range, acres enrolled, etc.

Mr. Chairman, Kansas Department of Agriculture and the Division of Conservation have a network of 525 locally elected voluntary supervisors within the 105 organized Conservation Districts. This grassroots governance of voluntary incentive based programs provides us with input from every county throughout the State. These volunteers, side by side with thousands of other farmers and ranchers, are natural resource conservationists working to protect soil, water, air, plants, and **animals**. Kansans have worked with State and Federal programs implementing conservation practices, many of which have significant benefits to wildlife. Of the 27 million acres enrolled in the USDA Conservation Reserve Program [CRP], Kansas currently holds approximately 2.34 million of the enrolled acres. These local leaders have voiced fears of the impacts in the event of a listing. Common questions arise: Will I be able to take my CRP out of the program if the LPC is listed? Will

I be able to build new fences, outbuildings, grain bins, etc.? Why would the Federal Government extend my current CRP contract if a different Federal agency prevents them from putting the land back to its prior use as row crop production? If returning CRP back to cropland is prohibited and the land is not re-enrolled in the program will I be prohibited from haying or grazing during "primary nesting seasons?" Will I be able to hay or graze existing pasture and rangeland? The list goes on and on.

These landowner questions communicate a significant potential for loss of currently enrolled CRP acres. This cause and effect relationship from a regulatory action may reduce the ability of USDA to maintain and re-enroll existing habitat, enroll new habitat acres, and to utilize other voluntary programs to assist the recovery of the LPC. We believe current Kansas conservation efforts are an indication as to why Kansas has the largest number of acres and numbers of birds within the occupied range. The Kansas Department of Agriculture's formal comments to the USFWS requested that they work with the Natural Resources Conservation Service and the Farm Service Agency to utilize existing programs such as CRP, Conservation Reserve Enhancement Program [CREP], and the Lesser Prairie-Chicken Initiative to prioritize these conservation practices and applicable programs to open sign-up status, increase the rental rates, and potentially add practices or plant mixtures to benefit the species.

Kansas has experienced three consecutive years of drought. Federal drought declarations verify this drought of record and this has had a significant impact on crops, plants, animals and everything in this region of the State. In my review of the LPC, it appears there are three basic requirements that will ensure the existence of the species which are food, nesting and brood rearing habitat and water. Outside the box thinking to add "wildlife water supply" to existing Federal programs is necessary, and may be essential, if recovery and repopulation of the LPC is the mission. I would volunteer to assist NRCS to modify an existing livestock water supply specification and to work with wildlife specialists to design a system that works. This should be the American way, assess the problem and define solutions, not resort to litigation or regulatory sprawl. Even drought can be planned for and managed with voluntary incentive based programs if the will is there that is supported by Congress, the Administration and respective Federal agencies.

In closing, I would like to highlight some of the most significant concerns of the Kansas Department of Agriculture. Potential impacts and issues for Kansas agriculture and the Lesser Prairie Chicken if a Federal listing occurs:

- The ability to continue food and fiber production in the affected area.
- The potential of expanding the footprint or buffer zone of current occupied range arbitrarily adding tens of thousands of acres under the control of USFWS.
- A reduction in personal property rights such as the inability to add an out-building at the farm, or pursue oil exploration, or utilize steady class 4 or class 5 winds for clean energy, to install or move an irrigation center pivot, to till expired CRP, etc.
- Weather cycles are not controlled by a Federal agency. Establishing and or maintaining habitat are subject to adequate precipitation for growth, which has potential implication with program compliance rules.
- Agriculture is the economic driver in Kansas; negative impact to that engine means schools will close, population will decline, jobs will be lost, etc. This is a narrow margin industry that is a price taker in the market place. When costs increase, the agriculture producer does not have the luxury of raising the price of the commodity.
- Assurances, Predictability (NRCS NB 300-14-7-LTP), State "Certainty" programs and many other bureaucratic terms of "protection" are feared due to loopholes, complex rules, hidden agendas that could lead to regulation of non-point source pollution.
- A listing will likely result in decreased participation by private landowners in voluntary conservation programs designed to benefit the LPC. Because the vast majority of LPC range is under private ownership, a Federal listing will likely hinder our ability to conserve the species rather than increase populations as intended.

Mr. Chairman, members of the committee, thank you for the opportunity to testify before you and to plea for help to find working voluntary solutions in lieu of regulatory control. Senator Roberts used a quote of President Dwight D. Eisenhower last week that I believe holds the key to a solution: "There is nothing wrong with America that the faith, love of freedom, intelligence and energy of her citizens cannot cure."

If it be the pleasure of the Chairman, I will stand for questions at the appropriate time.

The CHAIRMAN. Thank you very much, Mr. Foley, for your testimony. And now I will recognize Dr. Joe Roman from the Rubenstein School of Environment and Natural Resources at the University of Vermont in Burlington.

Dr. Roman, you are recognized for 5 minutes.

**STATEMENT OF DR. JOSEPH ROMAN, RUBENSTEIN SCHOOL  
OF ENVIRONMENT AND NATURAL RESOURCES, UNIVERSITY  
OF VERMONT, BURLINGTON, VERMONT**

Dr. ROMAN. Thank you, Chairman Hastings and members of the committee. So my name is Joe Roman, and I am honored to appear before you to discuss the importance of the Endangered Species Act today. I am a fellow at the Gund Institute for Ecological Economics at the University of Vermont, and also a visiting scholar at Duke University in North Carolina. In 2011, my book, "Listed: Dispatches from America's Endangered Species Act" was published by Harvard University Press.

Now I am going to give you a background on the act and on some of the ecological impacts of the act, in this case the economic benefits that the act can have. Forty years ago this month, the Endangered Species Act was passed. It was unopposed, 90 to nothing in the Senate, and there were only 4 nays in the House of Representatives. Richard Nixon signed the bill on December 28, 1973. So this month.

How has the act fared since then? The Endangered Species Act remains the strongest environmental legislation in the country, and the first comprehensive law to address the global extinction crisis. The diagnosis of listing a species is intended to be as clear as a visit to the doctor's office. A species is endangered or it is not, regardless of political or economic considerations.

The trouble is we often wait until animals and plants get to the emergency room before we make that diagnosis. Ninety-nine percent of listed species have been saved from extinction over the past 40 years, and there are clear success stories. The bald eagle was recovered in 2007 with breeding eagles in every State on the continent. The Pacific gray whale now has a population of about 19,000. And the gray wolf is once again an important part of the Rocky Mountain ecosystem.

Please allow me to discuss some of the many benefits of endangered species conservation. Biodiversity produces the ecosystem services from climate regulation to pollination and food production that we all depend on every day. These benefits could be spiritual or cultural. They can also be of direct value to local communities and human health.

In 2011, Americans spent about \$144 billion on wildlife viewing, hunting, and fishing. About 1 in 20 people are directly or indirectly employed by such outdoor activities. Wildlife conservation supports millions of jobs.

Endangered species protection also supports local economies. Manatees listed in 1967 in an earlier version of the act attract hundreds of thousands of visitors to Florida each year. Reef-based tour-

ism around the Florida Keys is almost entirely based on corals, including the federally listed staghorn and elkhorn corals. The industry employs more than 43,000 people, earning \$1.2 billion a year. This is supported by the ESA.

Endangered species and natural habitats provide ecosystem services, benefits provided by nature for free. Call it natural capital. Two endangered mussel species, the purple bank climber and the fat three-ridge, are found only on the Apalachicola River in Florida. Protection of these mussels helps ensure that our waters are not overused, that rivering and forest habitat provide a buffer from storm surges, and a nursery for shrimp, crab, and bass, essential to fisheries, including oystermen, the 1,200 oystermen that work in that area.

This diversity of life matters to our health and well-being on a daily basis. More species diversity means greater chemical diversity and more opportunities to discover pharmaceuticals for cancer or infectious disease. Most of our drugs come from natural compounds.

There is also a direct correlation between diversity of wildlife and the reduction of the transmission of zoonotic diseases. Those diseases pass from animals to humans. Lyme Disease, for example, is the most commonly diagnosed vector-borne disease in the country. It comes from ticks. Several studies have shown that areas with high diversity of wildlife can reduce the risk of this disease. Many species play a protective role by feeding, but not infecting, the black-legged ticks. So having a diversity of wildlife reduces the disease burden. Healthy ecosystems means healthy people.

Many species now struggle with habitat loss. In the Southeast, where I traveled from today, 99 percent of the long-leaved pine forests were cut down—they were already cut down when the ESA was passed—endangering many of its residents, including the red cockaded woodpecker. To respond to this loss, the Endangered Species Act has become the Nation's most effective habitat protection law.

Species and their habitats and their ecosystems are integrally related. The success of this powerful law depends on adequate funding and listing decisions based on the best available science. Economic studies should include the economic and ecological benefits of protecting endangered species, and we should work to incentivize voluntary conservation efforts on private lands so we don't wait until species are in the emergency room before we treat them.

I would like to conclude by thanking the Members of Congress and the American people for supporting the Endangered Species Act. The law is in the fine American tradition of protecting our citizens, economy, environment, and wildlife in all its forms.

[The prepared statement of Dr. Roman follows:]

PREPARED STATEMENT OF DR. JOSEPH ROMAN, RUBENSTEIN SCHOOL OF ENVIRONMENT AND NATURAL RESOURCES, UNIVERSITY OF VERMONT, BURLINGTON, VERMONT

Good morning, Chairman Hastings and members of the committee. My name is Joe Roman, and I am honored to appear before you to discuss the importance of the Endangered Species Act. I have been working on endangered species conservation for the past 20 years. I am a visiting scholar at Duke University and a fellow at the Gund Institute for Ecological Economics at the University of Vermont. My research and writing focus on the biology and economics of endangered species con-

servation. In 2011, my book *Listed: Dispatches from America's Endangered Species Act* was published by Harvard University Press; it was awarded the 2012 Rachel Carson Book Award by the Society of Environmental Journalists.

Forty years ago this month, the Endangered Species Act was passed. When the act came up for a vote in the Senate, there was widespread bilateral support. Republicans Bob Dole of Kansas, Jesse Helms of North Carolina, Ted Stevens of Alaska, and Howard Baker of Tennessee voted for the bill. There were only four nays in the House of Representatives. Signing the act on December 28, 1973, President Richard Nixon noted that the "legislation provides the Federal Government with the needed authority to protect an irreplaceable part of our natural heritage—threatened wildlife. . . . Nothing is more priceless and more worthy of preservation than the rich array of animal life with which our country has been blessed. It is a many-faceted treasure, of value to scholars, scientists, and nature-lovers alike, and it forms a vital part of the heritage we all share as Americans."

Forty years on, how has the act fared? The Endangered Species Act remains the strongest environmental legislation in the country, and the first comprehensive law to address the global extinction crisis: zero-tolerance legislation. No new extinctions, no exceptions. The diagnosis of listing a species is intended to be as clear as a visit to the doctor's office: a species is endangered or it is not, regardless of political or economic considerations. Once a species is protected, the Fish and Wildlife Service has had a very high success rate: about 99 percent of listed species have been saved from extinction, and populations of most animals and plants protected under the act are stable or increasing in size (Bean 2009). It is likely that hundreds of species would have gone extinct in the United States in the absence of this legislation.

There are clear successes: The bald eagle was recovered in 2007, with breeding eagles in every State on the continent. After hunting was banned and habitat preserved, the American alligator fully recovered in 1987. The Pacific gray whale, delisted in 1994, now has a population of about 19,000. The gray wolf, extirpated by park rangers in Yellowstone in the early 20th century, is now an important part of the Rocky Mountain ecosystem. These are just a few of the species that have benefited.

The Endangered Species Act has been an influential law, serving as the model for biodiversity conservation around the world and in many States looking to protect biodiversity on a local level. By investing in endangered species, we are saving wildlife in all its forms and protecting our economy and human well-being. Yet stagnant funding levels hurt nearly every aspect of Endangered Species Act implementation, from listing species, to conducting recovery activities and providing sufficient law enforcement. When we make these investments, we can expect endangered species recovery and healthy ecosystems. Please allow me to discuss some of the many benefits of endangered species conservation.

#### THE ECONOMICS OF WILDLIFE PROTECTION

Biodiversity produces the ecosystem services—from climate regulation to pollination and food production—that all of us depend on everyday. The field of ecological economics can help us to resolve conflicts and see a path forward that includes stewardship, sustainability, and the valuation of natural capital. It can also help us to quantify the benefits of protecting endangered species and their habitats. These benefits can be spiritual and cultural, and they can also be of direct value to local communities and human health.

On the most obvious level, wildlife brings in millions of recreational and tourism dollars to many communities, through bird watching, whale watching, and other forms of outdoor activities. The Department of the Interior, Commerce Department, and Census Bureau have been gathering economic data on outdoor activities since 1955. In 2011, Americans spent more than \$144 billion on hunting, fishing, and wildlife watching (U.S. Fish and Wildlife Service and U.S. Census Bureau 2012). About 1 in 20 people are employed directly or indirectly by such outdoor activities. Wildlife conservation supports millions of jobs.

Endangered species protection also supports local economies. Manatees, federally listed since 1967, attract hundreds of thousands of visitors to Florida each year (Fig. 1). Just about all of the tourism in Citrus County, on Florida's "Nature Coast," centers on manatees. Tourists spent \$23 million a year to see them in the local springs, and many tour operators support Federal protections of these marine mammals. Homosassa, Florida, has erected a statue celebrating its favorite attraction.

Citrus County, like other parts of Florida, makes its living from protected species. Reef-based tourism around the Florida Keys is almost entirely dependent on corals, including the federally listed staghorn and elkhorn corals; the industry employs more than 43,000 people, whose wage income totals \$1.2 billion a year. By pro-

tecting whales, we created a \$956 million annual industry for Coastal States in the Atlantic, Pacific, Gulf of Mexico, Hawaii, and Alaska (O'Connor et al 2009). In many cases, this industry helped diversify employment as commercial fishing opportunities were reduced. The figures for birdwatchers alone are staggering: there are 48 million in the United States, compared to about 33 million anglers and hunters. Bird watching is worth \$32 billion per year in the United States. Just as cities compete for stadiums and factories, communities should vie for parks and charismatic fauna, such as whooping cranes in Texas and Wisconsin, bald eagles at Mason's Neck in Virginia, and humpback whales in New England.



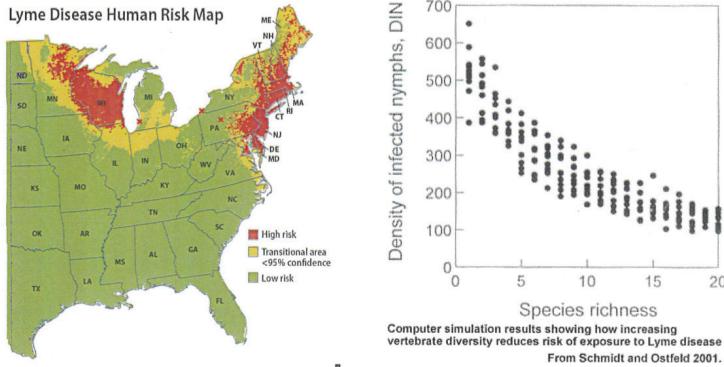
**Fig. 1.** Manatees are an essential part of the Florida coast, including its economy (photo courtesy of USFWS).

Though wildlife conservation clearly boosts employment, a common complaint is that protected areas reduce a community's tax base. But the reality is that these expenditures help local economies: wildlife watching and outdoor recreation bring in about \$40 billion in tax revenues to State and local governments (Southwick Associates 2012).

Endangered species conservation also supports our natural capital in the form of ecosystem services. Two endangered mussel species—the purple bankclimber and the fat three-ridge—are found only on the Apalachicola River in Florida. It appeared that they were in direct conflict with human activities, especially when Atlanta was suffering drought in 2007. But here's the thing: endangered species are their habitat, and these habitats provide long-term benefits to all of us. Protection of endangered mussels helps ensure that our waters are not overallocated or overexploited, and these filter-feeding bivalves can help reduce pollutants, which benefits people downstream. The riverine habitat of endangered mussels provides numerous services for people and their local economies. Flooding forests can buffer communities from storm surges and provide a nursery for shrimp, crab, and bass and other fish. Apalachicola fisheries are worth more than \$200 million per year. There are 1,200 oystermen and 25 packinghouses working in this region, representing 90 percent of the Florida harvest. The flooding forests are also the source of tupelo honey. In a good harvest year, the tupelo honey crop in Florida approaches \$900,000 (Roman 2011).

The benefits of protecting species often outweigh the short-term costs. Forests help stabilize the climate by absorbing and storing carbon dioxide in trees, soils, and understory foliage. Marshlands and barrier beaches protect us from extreme storms

and hurricanes. Trees clean the air. By restoring and conserving natural infrastructure, we create jobs and provide ecosystem services to the most vulnerable populations, dependent on forests and oceans.



**Fig. 2.** A) Map of Lyme disease risk in the Eastern United States. B) Relationship between species richness (or number of wild species) and density of ticks (nymphs) infected with Lyme disease (Schmidt and Ostfeld 2001).

#### BIODIVERSITY AND HUMAN HEALTH

The diversity of life matters to our health and well-being on a day-to-day basis. More species diversity means greater chemical diversity and more opportunities to discover pharmaceuticals. Sixty percent of cancer drugs and 75 percent of drugs for infectious diseases come from natural compounds. There is also a direct correlation between the diversity of wildlife and the reduction of the transmission of zoonotic diseases, such as hantavirus, which are transmitted from animals to humans. This is important since we appear to be in a time when diseases are emerging and re-emerging at a high rate, perhaps because we are altering environments so quickly and traveling around the world more rapidly.

West Nile virus reached the United States in 1999 and is now found from Massachusetts to Florida to Washington State. The hosts for West Nile virus are our common birds of the suburbs, such as robins and crows, which can contract the disease and die. Other less common species, such as wading birds and woodpeckers, are epidemiological dead ends. When mosquitoes bite these birds, the virus is not transmitted, and the prevalence of the disease goes down (Ezenwa et al. 2006). The greater the species richness, the greater the dilution effect for the disease reservoir, and the lower the risk to people. More species diversity equals reduced disease transmission.

Lyme disease is the most commonly diagnosed vector-borne disease in the country, transmitted by the blacklegged tick (Fig. 2). An important host for this bacterial disease is the white-footed mouse, common in fragmented landscapes. Several studies have shown that areas with high diversity of wildlife can reduce the risk of Lyme disease: many species play a protective role by feeding but not infecting blacklegged ticks. The Virginia opossum, for example, grooms and kills the ticks, which can reduce the prevalence of the disease (Ostfeld and Keesing 2012).

By restoring healthy ecosystems, with a full suite of native species from microbes to plants to predators, we can reduce disease transmission, bolster local economies, and enhance our experience of nature. Biodiversity protection may be as important to people on a local scale in their everyday lives as it is in remote protected ecosystems (Pongsiri et al. 2009).

#### HABITAT CONSERVATION

Historically, overexploitation was responsible for many of the extinctions in North America, such as the great auk, sea mink, and passenger pigeon. But now many species struggle with more systemic problems, such as habitat loss and invasive species. In the Southeast, 99 percent of the native long-leaf pine forests were cut down, endangering many of its residents, including the red-cockaded woodpecker. Loss and fragmentation of sagebrush habitats are the main causes in the decline of Gunnison and greater sage grouse populations. The Gunnison sage-grouse has declined by

more than 90 percent from its historic abundance and has been proposed for listing as endangered with a final decision expected next year.

In its attempt to decelerate or mitigate such threats, the Endangered Species Act has become the Nation's most effective habitat protection law. The drafters of the law made it clear that more than just species conservation in a zoo or arboretum, the act was intended "to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." The Supreme Court has affirmed that the act's definition of "take" included the severe harm of habitat destruction. Our protection of endangered species depends on preserving and restoring healthy ecosystems.

#### WAYS FORWARD

The Endangered Species Act is a powerful law, but its success depends on funding it adequately and on maintaining its integrity. If we invest more in protecting species, we can recover them and receive enhanced benefits from our natural capital. All species that deserve protection should be listed and fully protected. Many species have to wait years, and sometimes decades, to be protected under the act even though the science is clear that they need to be listed. Delaying listing makes conservation more difficult, and species have gone extinct while waiting for status determinations. Decisions should be made based on the best available science, without political interference. Economic studies should examine the economic and ecological value of protecting endangered species in addition to the costs. We should work to incentivize voluntary conservation efforts through the Farm Bill and other legislation, to protect native species and endangered habitats on private lands.

I would like to conclude by thanking the Members of Congress and the American people for supporting the Endangered Species Act. The law is in the fine American tradition of protecting our citizens, environment, and wildlife in all its forms. The act has been successful in reducing extinctions and protecting our natural heritage. By protecting endangered species we can conserve the flora, fauna, and natural systems that fuel our economy and protect our well-being.

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#### QUESTIONS SUBMITTED FOR THE RECORD TO DR. JOSEPH ROMAN

##### QUESTIONS SUBMITTED FOR THE RECORD BY THE COMMITTEE ON NATURAL RESOURCES

*Question.* Given the advancements in scientific understanding we have made as a society, is it appropriate for us to ensure that development activity is compatible with species conservation? Is development that ignores biodiversity responsible?

*Answer.* Development that ignores biodiversity is neither responsible nor sustainable. In the 40 years since the Endangered Species Act was passed, we have made major strides in conservation biology, including conservation genetics, captive breeding, and habitat restoration. We've even started restoring species like whooping cranes, California condors, and gray wolves, to historic ranges.

During this time, we've come to understand that we can live with wildlife—that our native animals and plants are not simply denizens of remote preserved areas, but part of the mosaic of human landscapes. Responsible, sustainable development will give us a desirable future and protect biodiversity in all of its forms. Perhaps more than anything we do, future generations will thank us for protecting the wild charismatic animals, such as whales and rhinos, and the critical components of ecosystems, such as plants, invertebrates, and microbes.

*Question.* Can you please elaborate on the benefits of biodiversity for helping to stop the spread of, and cure, deadly diseases?

*Answer.* Biodiversity can help us in many ways, perhaps most obviously because more species diversity means greater chemical diversity and more opportunities to discover pharmaceuticals. Approximately 60 percent of cancer drugs and 75 percent of drugs for infectious diseases come from natural compounds.

There is also a direct correlation between the diversity of wildlife and the reduction of the transmission of zoonotic diseases, such as hantavirus, which are passed from animals to humans. West Nile virus reached the United States in 1999 and is now found from Massachusetts to Florida to Washington State. The hosts for West Nile virus are the common birds of the suburbs, such as robins and crows, which can contract the disease and die. Other less common species, such as wading birds and woodpeckers, are epidemiological dead ends. When mosquitoes bite these birds, the virus is not transmitted, and the prevalence of the disease goes down. The greater the species richness, the greater the "dilution effect" for the disease reservoir and the lower the risk to people. More species diversity equals reduced disease transmission (Roman 2011).

Lyme disease is the most commonly diagnosed vector-borne disease in the country, transmitted by the black-legged tick. An important host for this bacterial disease is the white-footed mouse, common in fragmented landscapes. Several studies have shown that areas with high diversity of wildlife can reduce the risk of Lyme disease: many species play a protective role by feeding but not infecting blacklegged ticks. The Virginia opossum, for example, grooms and kills the ticks, which can reduce the prevalence of the disease.

By restoring healthy ecosystems, with a full suite of native species from microbes to plants to predators, we can reduce the transmission of some diseases. Biodiversity protection may be as important to people on a local scale in their everyday lives as it is in remote protected ecosystems.

*Question.* A paper published last week in *Nature* magazine found that tidal wetland communities have an incredible ability to adapt to rising sea levels and more frequent flooding. This would seem to be a boon for coastal communities, as wetlands buffer against storms and absorb floodwaters and high tides, but the paper also reports, ironically, that human development is the biggest threat to allowing these wetlands to adapt for our benefit. Can protecting this type of habitat for the diamondback terrapin and the whooping crane protect our coastal communities and private property as well?

*Answer.* Yes, I think there is a great value in protecting wildlife and wetlands. By doing so, we protect endangered species, such as the whooping crane, and the many Americans that live along the Nation's coast. I recently wrote a piece about the piping plover on the east coast for *Slate*. In the article I discuss how conservationists and landowners can work together to preserve the coastline for shorebirds and other wildlife as well as homes (Roman 2013). We can start with more stringent building codes and a retreat from the high-risk overwash zones. We should also use ecological engineering to protect our coastlines. Along the bays and estuaries, salt marshes absorb storm surges. Oyster reefs are natural breakwaters, protecting shorelines. All of these habitats, our natural infrastructure, provide other services, including nurseries for fish, carbon sequestration, and the conservation of wildlife, as well as protecting property. Restoring habitats that trap sediment and damp waves, such as oyster beds, mussel beds, and willow floodplains, will have many benefits for coastal communities (Borsje et al. 2011).

One recent study suggests that natural habitats protect two-thirds of U.S. coastlines. We need to protect these habitats now, as sea-level rise is likely to increase the number of people by up to 60 percent in the coming decades (Arkema et al. 2013). To prepare for these changes, human communities should be built wisely, saving protected areas. Pioneering efforts in Louisiana and New York that include natural and engineered systems can be emulated in other regions. Including natural systems on our coastal planning will save us money, heartache, and the species we treasure like piping plovers, whooping cranes, and diamondback terrapins.

*Question.* In his testimony, Mr. Albrecht mentioned that the greater sage-grouse is hunted and killed by sportsmen in Utah. If threats to its habitat require that a species be protected under the ESA, hunting will need to be greatly curtailed or

eliminated. Can you talk about the negative economic consequences for sportsmen and rural communities when irresponsible land use leads to a decline in game species?

Answer. In my home State of Vermont, and in North Carolina, where I have been working this year, hunters form an important part of the local community and economy. In 2011, hunters spent approximately \$34 billion dollars in the United States, and fisherman contributed \$24 billion to the economy (U.S. Fish and Wildlife Service 2012). Just like the greater sage grouse, these hunters and fishers depend on healthy productive ecosystems—open land where they can hunt and fish. If we lose that land, people will have to travel further, and those travel costs are tough if you're on tight budget.

Consider the fantastic work that Ducks Unlimited has done in protecting and restoring marshes or the money that has gone into protecting wildlife refuges by the Duck Stamp program. Trout Unlimited has also worked hard to keep our waters healthy and running free. Hunters and fishers have long understood that we need healthy ecosystems with abundant wildlife. They travel, they spend money, and they learn to appreciate the outdoors. They can be some of our greatest allies in habitat protection.

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The CHAIRMAN. Thank you very much, Dr. Roman, for your testimony. And now I will recognize Mr. Brock Evans, President of the Endangered Species Coalition based here, in Washington, DC.

Mr. Evans, you are recognized for 5 minutes.

#### **STATEMENT OF BROCK EVANS, PRESIDENT, ENDANGERED SPECIES COALITION, WASHINGTON, DC**

Mr. EVANS. Thanks, Mr. Chairman and members of the committee. I very much appreciate the invitation to be here. And personally, I want to say, for myself and the Endangered Species Coalition—which is about 300 groups, scientific societies, religious groups, and sportsmen groups, as well as environmental, actually, Mr. Chairman—that it is a great honor, a special honor to be here this month and this date. Because, as my colleagues have mentioned, this is the 40th anniversary of the Endangered Species Act, signed by Richard Nixon December 28, 1973. And so it is considered by many as one of the finest and most effective wildlife and habitat protection laws anywhere in the world. And I want to come back to that.

First, I also want to add—I can't resist adding to my colleague that I used to spend many years in our State, Mr. Chairman, in Washington State, concerned about what is happening to the ancient forests out there. And during most of those days in the early 1960s and 1970s, we always thought that the most valuable treasure that should be protected that is unique are those magnificent trees of the ancient forests, 4 to 8 feet thick and 200 feet high, and they were like cathedrals, and so on. And so, that is what we fought for and worked for.

I didn't realize until a good deal later that the most important tree in that forest, from a human scientific standpoint, was a little small, scraggly tree called the yew tree, Pacific yew tree. You know it, I am sure. Small, bent over, a little tree down there in the bottom. Whenever they would clear out the big trees for lumber, they would always just burn the yew tree in the pile. Well, it turns out that the bark of the yew tree produces Taxol, which is used in the treatment of cancer. It melts ovarian tumors. It protects against cancer, for example. This is just another example to add to what my colleague just added about, all the uses of these seemingly insignificant species that can make a big difference. And we must not let them go extinct.

In my opinion, and my colleague's opinion, the whole world is a library full of books of all these chemical compounds and things like that, that we don't even know the answers to yet. And we have only read about 5 percent of the books. And so, to let a species go extinct is like burning down all the libraries, but not reading any—only 5 percent of the books.

Let me come back, though, because time is limited, and I appreciate having some. This might be a good time to read President Richard Nixon's words, which I think respect what this is all about here. He said, "Nothing is more priceless and more worthy of preservation than the rich array of animal life with which our country has been blessed. It is a many-faceted treasure, of value to scholars, scientists, and nature lovers alike, and it forms a vital part of the heritage of all Americans. I congratulate the 93rd Congress for taking this important step toward protecting a heritage which we hold in trust for countless future generations of our fellow citizens. Their lives will be richer and America will be more beautiful in the years ahead, thanks to the measure that I have the pleasure of signing into law today." That is what Richard Nixon said.

And I don't think he was just speaking about the fact that it is a strong and remarkable law, Mr. Chairman, but he is also commenting on the enormous majorities by which it passed. As my colleague said, 92 to nothing in the Senate, 355 to 4 in the House. Quite a remarkable expression of bipartisan unity, one of the best that our feisty people can ever get.

So, that was very, very powerful, expressed the hopes and the loves of the whole American people, who don't want to see things go extinct, who want to have a regular process for saving them, protect them, and keep them going. So we would suggest, Mr. Chairman—and I think we all feel this inside our hearts, here—that what we have is before us in the native species—it is not just one of the best wildlife habitat protection statutes anywhere in the whole world, but it is a profoundly moral law. Moral. Think of that.

For the first time ever in the history of the world, the legislators of our great Nation got together in 1973 and they said that from now and henceforth, we shall not permit any living species of plant or animal that shares its natural territory with us to go extinct. So, there is a lot more in my statement about that, but we should always remember the morality of these laws. And that is why the American people love them so much, among other things.

Let me just close with the remarks of one of our most active board members, a retired Marine Corps general, and here is what

he said. "When service members deploy to other lands, they see the devastation wrought by governments who don't hold their land in stewardship for future generations. It gives those of us in uniform a unique perspective on the incredible beauty of our own land. And we know that. Were it not for the protection of the Endangered Species Act, we would be no different from those countries that have failed to respect their environment. For us, a country worth defending is a country worth preserving."

Thank you, Mr. Chairman.

[The prepared statement of Mr. Evans follows:]

PREPARED STATEMENT OF BROCK EVANS, PRESIDENT, ENDANGERED SPECIES COALITION, WASHINGTON, DC

Mr. Chairman and Ranking Member DeFazio, thank you for the invitation to appear here before you today. I am Brock Evans, President of the Endangered Species Coalition. While we have some members who are individuals, most of our membership consists of more than 300 groups around the country large and small, including scientific societies, sportsmen's organizations and religious groups as well as environmental organizations. Founded in 1982, just 9 years after passage of the Endangered Species Act, our mission ever since has been to watch over the implementation of this landmark law. It is considered by many as one of the finest and most effective wildlife and habitat-protection laws anywhere in the world.

We at the Endangered Species Coalition are very proud of the Endangered Species Act and the way it has operated in all branches of our political system, to carry out its specific legal mandate, passed into law by the Congress 40 years ago, and signed by President Richard M. Nixon exactly 40 years ago this month—December 28, 1973.

Perhaps this 40th year Anniversary of the Endangered Species Act is just the right place for us all to recall the exact words of President Nixon, who was clearly expressing the near-unanimous will of the whole American people, in his official remarks while signing the law:

"I have today signed S. 1983, the Endangered Species Act of 1973. At a time when Americans are more concerned than ever with conserving our natural resources, this legislation provides the Federal Government with needed authority to protect and irreplaceable part of our natural heritage—threatened wildlife.

"This important measure grants the Government both the authority to make early identification of endangered species and the means to act quickly and thoroughly to save them from extinction. . . .

"Nothing is more priceless and more worthy of preservation than the rich array of animal life with which our country has been blessed. It is a many faceted treasure, of value to scholars, scientists, and nature lovers alike, and it forms a vital part of the heritage of all Americans. I congratulate the 93rd Congress for taking this important step toward protecting a heritage, which we hold in trust to countless future generations of our fellow citizens. Their lives will be richer, and America will be more beautiful in the years ahead, thanks to the measure that I have the pleasure of signing into law today."

President Nixon was speaking, not just about a strong and remarkable law, but also about the enormous majorities by which it was passed: 92–0 by the Senate, and 355–4 in the House. . . . Quite a remarkable expression of bipartisan unanimity for any democratically elective body, anywhere in the world . . . this was one of those most clear expressions of our will to be found in nearly any statute.

Its passage back then 40 years ago was also an expression of the *hopes*, of a whole people and their elected representatives—that these other most interesting, beautiful and useful native plants and animals, who share our Nation with us, will survive, despite the desperate condition of many of them at that time . . . and likely, off into the foreseeable future. Something had to be done and quickly, reasoned the Congress—or not at all, and we would lose all this.

This grand hope has proved itself and its value many times over in the four decades since in spite of many ups and downs. Remember a species has to be truly in emergency room status before it can even get ON the endangered species list, and only then recovered when populations reach a sustainable level. Yet the successes are a great tribute. We brought the American peregrine falcon back from just 324 individuals in 1975 to approximately 3,500 nesting pairs today. The American alli-

gator had been hunted and traded to near-extinction. Today they number around 5 million from North Carolina through Texas. Even species that are not yet ready to come off of the endangered species list are seeing great comebacks, such as the southern sea otter. Sea otters were down to about 50, yet have rebounded to approximately 2,800 individuals in recent years.

But there is something else, Mr. Chair, which we also want to share with the committee. It is the recognition, the understanding, that the Endangered Species Act is a law uniquely expressive of American values, and American culture . . . in short, it is an *American* law. . . . Thus a most powerful statement of our love, as a people, for our land and our wildlife.

Let us remember, reflect back on those events of 1973 once again when the legislators of a great nation got together, and they said . . . from now on and henceforth, we the American people shall not permit any living native plant or wild creature which shares the national territory with us, to become extinct.

And as we have seen, that legislation which passed by the overwhelming numbers I mentioned already and was signed by a Republican President with the enthusiastic support of his advisors. This is about as bipartisan and unified as our feisty people can get.

Why is this? I have pondered this great achievement many times, since I became the Executive Director of the Coalition in 1997, and the President in 2006: And I think I have, at last, understood: it is because the Endangered Species Act is not just another wildlife protection statute. It is more, so much more, than just that: it is a moral, profoundly moral law. And thus the political expression of the love of a whole people.

But there is something else, Mr. Chairman, and then I will close: The Endangered Species Act was not then, in 1973, and is not now, 40 years later, some kind of weird anomaly in our political history. I have come to realize that too. Most Americans really *do* love their land, and this is a tradition of our national life that goes way, way back . . . before anyone even thought of the words “endangered species” . . . to William Bartram 1778, James Fenimore Cooper, the Hudson River School, all the way to the establishment of Yellowstone National Park a century later, 1872.

The establishment of Yellowstone, followed by a whole National Park *System*, was so significant and so influential that in 1912, the British Ambassador commented: “National Parks are the best idea America ever had”.

But that wasn’t the end of it, this narrative about the innate love and concern for wild places and the wildlife they sheltered, by our people either. In 1964 along came another very strong and very protective law: the Wilderness Act—an even stronger law, again passed by huge majorities, and requiring protection of the best of our Nation’s remaining wild places, and the wild creatures which inhabited them.

Because of this long and consistent past political history protecting natural places and their native wildlife, we suggest it is no accident that the Endangered Species Act was passed just 9 short years later.

Think of it again: the profound morality of all these statutes, together one dramatic and powerful set of expressions: of Americans’ desire to protect as much as possible of the beauty and wildlife we live among.

Simply put, in my direct experience, the American people of every and any party, race, culture . . . religion, all love their parks and wildlife and will fight to protect them . . . that fact explains better than anything else why the Endangered Species Act has not only survived, but also flourished despite all the efforts to weaken it over the years.

And that brings me again to the subject of this hearing: legal settlements negotiated under the Endangered Species Act.

The question is whether it is lawsuits that are hampering species recovery or whether it is actually the chronic underfunding of the Fish and Wildlife Service and their efforts to recover species. With adequate funding, the agency would be able to not only review listing petitions in a timely fashion, but they would also have the resources to recover species—not just prevent their extinction.

This is what we believe, and what we have witnessed Mr. Chairman, and we appreciate the opportunity to share these thoughts with the Committee today. We are all Americans here, and the Endangered Species Act and the way it works to fulfill its guarantee—to the whole American people as well as to our native plant and animal life—offers much to be proud of . . . just as do the National Parks and Wilderness Acts.

I close with the remarks of a retired Marine Corps general Mike Lehnert, who also happens to be a very active member of our Endangered Species Coalition Board of Directors:

“When service members deploy to other lands, they see the devastation wrought by governments who do not hold their land in stewardship for future generations.

It gives those of us in uniform a unique perspective of the incredible beauty of our own land, and we know that, were it not for the protection of the Endangered Species Act, we would be no different from those countries that have failed to respect their environment. For us, a country worth defending is a country worth preserving.”

Thank you, Mr. Chairman and Ranking Member DeFazio for the opportunity to share our views with the committee today.

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#### QUESTIONS SUBMITTED FOR THE RECORD TO BROCK EVANS

#### QUESTIONS SUBMITTED FOR THE RECORD BY THE COMMITTEE ON NATURAL RESOURCES

*Question.* The Endangered Species Act has been described by some as a “Federal receivership,” into which plants and animals are only placed if they become threatened with or in danger of extinction given that States have primary jurisdiction over wildlife management. When State mismanagement has pushed a species to the brink, does it make sense to then give the same State authority over species conservation and recovery?

*Answer.* Often touted by opponents of Federal protection, the claim that Endangered Species Act removes the authority of States to manage wildlife is inaccurate. In many cases of listed species, the States (through memorandum of understanding with FWS) are often the primary agencies managing the species on the ground, and they almost always work in concert with the Federal agencies on various conservation measures aimed at restoring protected species and their habitat. Examples include gray wolves and grizzly bears in the N. Rockies States, where State wildlife agency staff are the boots on the ground working to minimize human-wildlife conflict and managing (and sometimes removing) animals that are repeatedly getting into conflict. The act also provides Federal funds to States to manage conservation of listed species. So, while ultimately the FWS has the final say, the States are heavily involved in management of listed species.

For most species on the brink, the problem isn’t State management per se, rather it is habitat destruction and fragmentation. Some of this is private land that has been lost as quality habitat due to the commercial and residential development, and some are Federal lands and waters that have been fragmented due to industrial development and road-building. Both State AND Federal agencies have been complicit in permitting activities that result in the loss of habitat that drives species to the brink.

With regard to State fish and wildlife agencies, much (if not most) of their revenue derives from the sale of hunting and fishing licenses. As a result, many States have an incentive to protect this revenue source, which may incline wildlife managers to favor certain species over others. In the case of large carnivores, which are seen by some as a threat to huntale big-game species (and thus, State license revenue), States have shown a propensity toward more aggressive management of large carnivores to reduce threats to ungulates, even though there is little evidence that predators are the primary drivers of ungulate population control. In most cases, predation is secondary to habitat loss, over-hunting, and climate on populations of ungulates.

Recent analysis by Defenders of Wildlife also show that States do not have the necessary resources to protect species. While the budget for the Fish and Wildlife Service has decreased, the agency still has greater resources for wildlife protections compared to resources that States provide for threatened and endangered species.

Furthermore, State management around Federal lands can greatly impact the ability of Federal lands to serve as wildlife havens. For instance, Denali National Park in Alaska had previously had a buffer zone around the park where wolf hunting was prohibited. Buffer zone protections were lifted 4 years ago to devastating impacts according to a recent article in the Washington Post, The Last Wolves by Jane Goodall. While the National Park Service has been boasting that Denali is one of the best places in the world for people to see wolves in the wild, this has shifted dramatically. The chance of seeing a wolf has dropped to less than 12 percent today from nearly 45 percent just a few years ago. Only 59 wolves were found in the last count in Denali. Scientists such as Jane Goodall fear that the wolves of Yellowstone National Park may be headed in the same direction.

For those reasons, Federal involvement in protecting species is essential. It does not make sense to simply handover complete authority to State management without Federal engagement.

*Question.* We often hear that the cost of complying with the Endangered Species Act is a burden on landowners and businesses. However, it is a fact that only 1 percent of ESA consultations result in a “jeopardy” finding, meaning that 99 percent of proposed projects move forward with no restrictions. Isn’t it true that the Fish and Wildlife Service works with other agencies, businesses, and property owners to find ways to allow economic development that is compatible with species conservation?

*Answer.* Yes, U.S. Fish and Wildlife Service absolutely work with other agencies, businesses and property owners to find ways to allow economic development. Agencies have become very adept at supporting business and property owners to maintain their lands and business interests in ways that are compatible with species conservation. The idea that one must choose between the environment and economy is simply an urban myth spread by wildlife opponents.

Let me give you an example:

John and Christine Deck along with their five children, raise cows, pigs, chickens, goats and sheep outside of Junction City, Oregon. The Decks are very thoughtful in how they ranch, aiming to create wildlife habitat and improve the land’s productivity while minimizing inputs. The Decks’ ranch runs along Owens Creek. The waters of Owens Creek flow into rivers home to Upper Willamette River steelhead and Chinook salmon. Both are listed as threatened under the Endangered Species Act. The Decks made the choice to go beyond current Government required protections and help ensure their farm does not harm these already-compromised fish.

When they moved onto the farm, the Decks made a number of land management changes to be more sustainable. For example, their pasture was dependent on chemical inputs to maintain its vigor. With support from the Natural Resources Conservation Service, which is an arm of the U.S. Department of Agriculture, the Decks eliminated the inputs and built up organic matter by recapturing manure.

The Decks’ actions were simple; they fenced off the adjoining creek from livestock and restored the riparian habitat by planting native trees. Since then they have seen a noticeable improvement in the water clarity. They also doubled the phosphorus levels in their soil on ground where the practice grazing with chickens, creating naturally vigorous pastures.

The Decks understand the need to balance environmental protections with support for farmers. As John states, “Sustainable forestry and agriculture are the goals. Incentives for improving soil, sequestering carbon, and building sustainable systems will help reach that goal. Still, when harvesting degrades the land appreciably we need to rely on environmental protections.”

There are hundreds of other examples of FWS working with other agencies, businesses and property owners to find ways to allow economic development that is compatible with species conservation. CCAs, CCAAs, HCPs, Safe Harbor and No Surprise policies all do just that. States and private individuals worked to ensure the Sand Dunes Lizard was not listed and are working to prevent the listings of Lesser Prairie Chicken, Gunnison and Greater Sage Grouse etc.—because these species are finally moving toward listing decisions. Thus, the ESA listing process actually encourages this behavior.

According to FWS, of the more than 219,000 projects reviewed under the ESA between 1998 and 2001, less than  $\frac{1}{10}$  of 1 percent (367 projects) were found to potentially jeopardize endangered wildlife. Almost all of these projects, 99.7 percent either occurred on public land or required some type of Federal action to go forward. Most of the projects were allowed to go forward after taking steps to limit harm to species.<sup>1</sup>

*Question.* This year, the Majority has used delays in the development of water resources projects as an excuse to short circuit the ESA and NEPA processes, when there is NO evidence that these delays are caused by anything other than a lack of funding. Still, they press on arguing that they are not undermining environmental laws, only trying to ensure that decisions get made in a timely fashion. While we all support timely decisions, it seems that this support, for some, only applies when the goal is to develop natural resources, but not when it comes to protecting them. In 2007, for example, the Washington, DC District Court noted that the average delay in listing a candidate species was 10.6 years. So, the question is, does it seem reasonable to set hard, and often very short, deadlines for NEPA and ESA reviews that agencies must comply with when it comes to building a dam for example, but then to not expect that the agencies should also live by hard deadlines when it comes to making a determination related to the listing of a species?

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<sup>1</sup> U.S. Fish and Wildlife Service, “Consultations with Federal Agencies, section 7 of the Endangered Species Act,” February 2002.

Answer. It has always struck us as unreasonable, not to mention logically inconsistent, to demand very strict timetables for developing natural resources but not when it comes to protecting them. As cited above lack of funding is often the determining factor for projects not moving forward. For example, in California the two biggest water impoundments built in the last 20 years are Los Vaqueros Reservoir in Contra Costa County, and Diamond Valley reservoir in Riverside County. Los Vaqueros serves the people of eastern S.F. area, and Diamond Valley is a metropolitan Water District impoundment serving the L.A. basin. Both of these went through normal NEPA and ESA compliance review, and were built primarily because the agencies involved paid for them. Other actions related to water here, namely the Klamath basin settlement agreements have been waiting for 4 years for funding, mainly from the Federal Government. They, too, have passed NEPA and ESA compliance reviews. These projects were not blocked by ESA or NEPA compliance, but by lack of funding.

**On developing natural resources and streamlining environmental reviews:**

The National Environmental Policy Act and coordination with agencies like the U.S. Fish and Wildlife Service disclose the true environmental and economic costs of projects and allow decisionmakers and the public to determine whether those projects are deserving of investment by Federal taxpayers. They produce better, less damaging projects and have prevented fundamentally ill-conceived projects from advancing. This has saved hundreds of millions in taxpayer dollars while protecting wetlands vital to flood protection, migratory waterfowl, and clean water. In the face of increasing fiscal challenges, severe storms, floods, droughts, and sea level rise, we simply cannot afford to undermine these critical safeguards.

Streamlining environmental reviews as seen in bills like the Transportation bill, Water Resources Development Act and Restoring Healthy Forest for Healthy Communities Act are deeply concerning. While the majority of the streamlining is focused on NEPA, it is not limited to it and could include streamlining of ESA consultations and biological opinions. Project acceleration could apply to huge water projects including dams, draining wetlands and estuaries, beach renourishment, bridges, river and stream channel alterations of all sizes, harbor construction and maintenance, river and harbor channel dredging, and other environmentally devastating projects.

Many of the areas where these projects are proposed are home to endangered and threatened species. Without proper evaluations of impacts to habitat and species survival, hundreds of species could face considerable negative impacts over time. Not only could species and their long term survival be directly undermined by streamlining provisions, but its wide range and permanent implications could have overarching impacts to biodiversity as a whole.

Finally, these streamlining provisions would set an extremely dangerous precedent and open the door to similar streamlining provisions in other bills that would similarly weaken NEPA, the ESA and other Federal environmental statutes with respect to other Federal projects and actions, thereby allowing for more development, and more habitat impacts. For example, Sen. Murkowski (R-AK) has already suggested implementing the exact same streamlining language for energy development projects. This would undermine ESA review for huge energy related projects including transcontinental pipelines, wind turbines, coal mining, and major on and off shore oil drilling and exploration projects. Eventually all development and infrastructure will have streamlined environmental review.

Environmental reviews are often blamed for delays, however, according to Michael Replogle of the Institute for Transportation and Development Policy, only 3 percent of Federal highway projects actually undergo an environmental impact statement process. He says efforts to reduce delays should focus on diminishing unnecessary and redundant bureaucracy and improving cost-effectiveness. The same could be said of the listing process for threatened and endangered species.

These are just a few examples of the general pattern . . . wherein the really long delays in completion of Federal development projects, especially water projects, is not because of the mandated environmental reviews—which are neither costly nor particularly time-consuming (as compared with actual construction monies). Rather, and quite often, delays after those crucially important reviews occur because of a lack of Federal funding, politics and bureaucracy—not because of the reviews necessary to protect our lands and waters. We can furnish more examples of this general pattern if necessary.

The CHAIRMAN. Thank you very much, Mr. Evans, for your testimony. And now, for purposes of introduction, I recognize Mr. Stewart from Utah for purpose of introduction.

Mr. Stewart?

Mr. STEWART. Thank you, Mr. Chairman, and thank you for letting me visit your committee, once again. It is good to be among friends who share the same interests as I do. And it is my pleasure to introduce one of my constituents, and a good friend, and a great leader, Mr. Carl Albrecht from Garkane Cooperative Energy.

He has been employed there for more than 40 years. He has been the CEO for 21 years. And Garkane serves 14,000 customers, has over 400 miles of transmission lines, 2,200 miles of distribution lines. They serve six counties in south-central Utah, and two counties in northern Arizona.

Interestingly, as he will indicate in his testimony, they also serve four national parks, two national monuments, three national forests, besides BLM lands, and two Native American tribes. It is a great example of American innovation and resourcefulness.

And, Mr. Albrecht, as I have said, I have reviewed your testimony. As you indicated, is an example of a Keystone Cops scenario of really bad public policy, policy which makes it harder for working families, policy which makes it hard to create jobs, and frankly—and I think worst of all—in some cases it is policy that destroys the trust between American people and the Government. And I look forward to your testimony, sir, and thank you for being with us.

And, Mr. Chairman, I yield back.

The CHAIRMAN. I thank the gentleman for the introduction.

And, Mr. Albrecht, you are recognized for 5 minutes.

**STATEMENT OF CARL ALBRECHT, CEO AND GENERAL  
MANAGER, GARKANE ENERGY, LOA, UTAH**

Mr. ALBRECHT. Thank you, Chairman Hastings, and the committee, and Congressman Stewart, for the opportunity to visit with you this morning. My name is Carl Albrecht. I am the CEO for Garkane Energy, a rural electric co-op serving customers in south-central Utah and northern Arizona. We will celebrate our 75th anniversary next year. I believe we have the distinction of serving more national parks and monuments than any utility in the Nation. Our power lines enable the National Park Service to showcase these spectacular areas to people from throughout the world.

Each day we face the challenge of striving to balance between environmental desires and economic realities. We take very seriously the impact on the animals we live and work around, and believe it is important to protect the wildlife in our areas. The Endangered Species Act, a well-intended law, has, through the years, altered rural economies and communities. I started working at Garkane the year before Congress passed the ESA, and it seems to have occupied much of my career, ever since.

Not long ago, Garkane had an incident where we had acquired the right of way to build a power line, primarily on private and State lands. We were abruptly ordered to stop construction when it was determined that 2 acres of Utah prairie dog habitat were within a 350-foot buffer of the project's right of way. The habitat

was on private land adjacent to a major highway, and was not mapped by the State Department of Wildlife Resources. Work was delayed 9 months, until consultants for the Fish and Wildlife Service, paid for by our customers, could complete a prairie dog survey. To restart work on the project, Garkane agreed to pay \$20,000 to the National Wildlife Defense Fund, and hire a biologist to monitor all the work within the 350 feet of the prairie dog habitat.

Last month, as part of the construction of a transmission line which took 7 years and \$2 million to permit, we were required to fly in by helicopter 7 power poles to locations that were within yards of an existing public access road. This happened because the sites were contained in a prairie dog conservation area. Placing the power line in a prairie dog conservation area because a sage grouse lek, a potential strutting ground, was identified along the most economic alternative route for the line studied in an EIS. The resulting shift in routes required poles to be set with a helicopter and meant an additional single day expense for Garkane of over \$150,000.

Realize that while we tiptoe between a sage grouse lek and a prairie dog conservation area, there are existing roads and power lines all around us. It simply becomes a real-life version of the old floor game, Twister. Recognize this all takes place while private land owners can obtain permits to kill prairie dogs on their land, and sage grouse are hunted and killed by sportsmen in Utah.

Recently, the Fish and Wildlife Service identified nearly 150 new species as candidates for the Endangered Species Act. The entire Nation can expect more and more listings as the Fish and Wildlife Service works its way through a backlog of candidates being considered for protection. If folks in your State have not been hit by the ever-escalating cost of doing business and dealing with the ESA, just wait. Your phone will soon be ringing.

Compared to the dollars authorized by Congress here in Washington, DC, the costs incurred by Garkane to comply with the ESA regulations would be lost in congressional cafeteria cash registers. But when those costs end up in the electric rates for Garkane customers, it becomes real money. The few customers at Garkane and similarly affected utilities end up paying all the freight for litigation activities designed to safeguard various species for protection by the Government acting on behalf of all the citizens.

Garkane and other co-ops across the Nation believe that in this 40th year of the act, we must look at some type of reform to alleviate the ever-escalating burden placed on the backs of a few. Garkane's locally elected board of directors finds itself constantly asking why they, along with their friends and neighbors, are with increasing frequency being asked to pay more and more to meet ESA regulations, and wondering why, if the intent is to protect a species on behalf of all the Americans, the rest of the Nation's citizens don't share in the cost for protection.

Locally owned electric co-ops across the country continue to work to keep the electricity flowing to millions of homes at a price homeowners can afford. Seventy-five years ago, the Federal Government worked with us to turn the lights on in part of Utah and Arizona by bringing electricity to their homes. Garkane's power lines today follow the same general paths they have taken all these years, yet

the Federal Government appears more inclined to hinder and delay, rather than help and develop.

I believe it is time we looked back at what it means to have electricity in our homes, and other things that made this Nation great, and a more rational approach to the ESA. Thank you.

[The prepared statement of Mr. Albrecht follows:]

PREPARED STATEMENT OF CARL ALBRECHT, CEO, GARKANE ENERGY COOPERATIVE, INC., LOA, UTAH

Thank you for the opportunity to visit with you this morning. My name is Carl Albrecht. I'm the CEO for Garkane Energy, a rural electric cooperative serving customers in south-central Utah and northern Arizona. Garkane will celebrate its 75th anniversary next year. I believe we may have the distinction of serving more national parks and national monuments than any other utility in the Nation. The power lines that serve these areas have enabled the National Park Service to showcase to the world these spectacular places. Each day we face the challenge of striving for balance between environmental desires and economic realities. We take very seriously the impact on the animals we live and work around and believe it's important to protect and live in harmony with the wildlife in our areas.

The Endangered Species Act [ESA], a well-intended law, has through the years altered rural economies and communities. I started working at Garkane the year before Congress passed the ESA and it seems to have occupied much of my career ever since!

Not long ago, Garkane had an incident where we had already acquired the right of way to build a power line primarily on private property and State owned lands. A small portion of the line was on Bureau of Land Management [BLM] property where a National Environmental Policy Act [NEPA] analysis had been completed. We were abruptly ordered to stop construction when it was determined that 2 acres of Utah Prairie Dog [UPD] habitat were within a 350' buffer of the project's right of way. The habitat was on private land, adjacent to a major U.S. Highway and was not mapped by the State Department of Wildlife Resources. Work was delayed for 9 months until consultants for the U.S. Fish and Wildlife Service [USFWS] (paid for by Garkane customers) could complete a UPD survey. To restart work on the project, Garkane agreed to pay \$20,000 to the National Wildlife Defense Fund and hire a biologist to monitor all the work within 350' of the UPD habitat.

Last month as part of the construction of a transmission line, which took us 7 years and \$2 million to permit, we were required to fly in, by helicopter, 7 power poles to locations that were within yards of an existing public access road. This happened because the sites were contained in a Utah Prairie Dog conservation area. Placing the power line in a Prairie Dog conservation area happened because a sage grouse "lek" (*a potential strutting ground*) was identified along the most economical alternative route for the transmission line studied in an Environmental Impact Statement. The resulting shift in routes, requiring poles to be set with a helicopter, meant an additional single day expense for Garkane of over \$150,000. Realize that while we tip toe between a Sage Grouse lek and a Prairie Dog Conservation Area, there are existing access roads and existing power lines all around us. It simply becomes a real-life version of the old floor game "*Twister*." And recognize this all takes place while private landowners can obtain permits to kill prairie dogs on their land and Sage Grouse are hunted and killed by sportsmen in Utah.

Recently the U.S. Fish and Wildlife Service identified nearly 150 new species as candidates for endangered species act protection. The Service looks at protecting America's most at-risk wildlife as one of their highest priorities. The entire Nation can expect more and more listings as the USFWS works its way through a backlog of candidates being considered for protection. If folks in your State have not yet been hit by the ever escalating costs of doing business and dealing with the ESA, just wait, your phone will soon be ringing. Federal agencies begin treating some species as threatened before they are ever listed under the ESA. Such is the case with the Sage Grouse in our area. Some scientific documents on Sage Grouse released by the Department of the Interior have raised serious questions about the data and analysis used in the reports along with concerns over potential conflicts of interest among peer reviewers of the documents. Nevertheless, we continue incurring expenses to mitigate impacts based on the information derived from these reports.

Compared to the dollars authorized by Congress here in Washington, DC, the costs incurred by Garkane to comply with ESA regulations would be lost in congressional cafeteria cash registers. But when those costs end up in electric rates for Garkane customers, it becomes real money. The few customers at Garkane, and at

similarly affected utilities, end up paying all the freight for mitigation activities designed to safeguard various species selected for protection by the U.S. Government acting on behalf of all U.S. citizens.

Garkane and other rural electric cooperatives across the Nation believe that, in this the 40th year of the act, we must look at some type of reform to alleviate the ever escalating economic burden being placed on the backs of the few. Garkane's locally elected board of directors finds itself constantly asking why they, along with their friends and neighbors, are with increasing frequency, being asked to pay more and more to meet ESA obligations and wondering why, if the intent is to protect a species on behalf of all Americans, the rest of the Nation's citizens don't share in the costs for protection.

In the rural electric cooperative world we often quote a farmer giving witness in a rural Tennessee church in the early 1940s when he said, "*Brothers and sister, I want to tell you this. The greatest thing on earth is to have the love of God in your heart, and the next greatest thing is to have electricity in your house.*" Locally owned Rural Electric Co-ops across the country continue working to keep electricity flowing to millions of homes—at a price homeowners can afford.

Seventy-five years ago the Federal Government worked with Garkane to turn the lights on in rural parts of Utah and improve the lives of its citizens by bringing electricity to their homes. For the most part, Garkane's power lines today follow the same general paths they have taken for all those years, yet now the Federal Government appears more inclined to hinder and delay rather than help and develop, unless you're a prairie dog or a sage grouse, or a goshawk, or a pygmy rabbit . . . the list goes on and on. I believe It's time we look back at what it means to have electricity in our homes, and other things that make this Nation great, and return to a sense of reason and a more rational approach to the Endangered Species Act.

Thank you for the opportunity to testify, I would be pleased to answer your questions.

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The CHAIRMAN. Thank you very much, Mr. Albrecht, for your testimony. And last, but certainly not least, I want to welcome Ms. Megan Maxwell, an independent biologist from Broomfield, Colorado. Ms. Maxwell, you are recognized for 5 minutes.

#### **STATEMENT OF MEGAN MAXWELL, CONSULTING BIOLOGIST, BROOMFIELD, COLORADO**

Ms. MAXWELL. Thank you, Mr. Chairman and members of the committee. I appreciate the opportunity to share my view with you. I am a consulting biologist, and I have conducted an in-depth review of BLM's sage grouse national technical team report, the NTT Report. As part of my review, I compared the peer review comments on the draft report to the final report, to see if the concerns raised during the peer review period had been addressed. I thank the Chairman for his letter to Secretary Salazar, which led to partial release of the peer review comments, and which helped me in my review of the NTT Report.

I would like to bring to your attention three key issues with regards to the NTT Report.

First, peer review of the NTT Report and internal emails between NTT members obtained through a FOIA request by Idaho Governor Otter's office suggests that the report does not represent the best available science, but rather, a policy document that hastily and selectively applied scientific studies, and consists of invalid assumptions, mischaracterization and misrepresentation of sources, omission of existing programs that benefit sage grouse, personal opinions substituted in place of science, unachievable required design features and best management practices, and policy inconsistent with FLPMA and its associated regulations.

The second is with regard to the scale and the one-size-fits-all approach advanced in the NTT Report. BLM manages 47 million acres of sage grouse habitat, which is located across 11 Western States, and which consists of highly varied ecological conditions, as well as varied threats to sage grouse and its habitat. The NTT Report provides habitat recommendations for sage grouse across its entire range, including specific habitat prescriptions or goals which would apply to all sage grouse seasonal habitats.

Although this one-size-fits-all management approach may be convenient for BLM to administer, it is completely inappropriate for sage grouse, because of their broad ecological range, variations in population traits and characteristics across their range, and the variability and habitat conditions and threats within the range. These variations make managing sage grouse and their habitat a complex task that must consider site-specific conditions and variables.

Simplifying sage grouse management by creating range-wide habitat prescriptions or percent disturbance thresholds fails to target specific sub-regional and population scale factors, as well as seasonal habitat preferences. The simplistic one-size-fits-all approach advanced in the NTT Report completely fails to recognize this variation and complexity, which is a critical flaw. Consequently, the habitat management recommendations in the NTT Report will likely fail to protect sage grouse and sage grouse habitat range-wide, and could even result in unintended adverse consequences, like increased risk of catastrophic fire and habitat destruction in areas already under extreme threat of wildlife.

The third issue is the NTT Report fails to adequately address the primary threat to sage grouse, range-wide, and the principal threat in the western portion of its range, which is the fire and invasive species cycle, and, instead, focuses its attention on activities that BLM already regulates, without giving a regard to the degree to which these activities are present across the entire range. The threat of fire and invasive species cannot be ignored. It does not make sense to apply conservation measures which are not specifically designed to address this primary threat.

If protection of sage grouse and its habitat are going to be effective, then properly identifying what the threats are, where they are present, and to what degree they are present would be the obvious first step. Only then can the most effective conservation measures be implemented. The failure by BLM to appropriately identify the threats to each population, and then apply tailored conservation measures to address the identified threats, will lead to implementation of ineffective conservation measures, which will not likely provide Fish and Wildlife with the data it needs to make a “not warranted” finding during the upcoming listing process.

All that said, there is an opportunity to remedy the problem associated with the NTT Report: (1) Fully and evenly implement its existing policy manual, 6840, which Fish and Wildlife identified as having potential to adequately protect sage grouse in its warranted but precluded determination; (2) properly identify the threats at a population level, and then consider the various conservation strategies available; and, (3) take the opportunity to consider more recent studies, as well as suggestions made by two other DOI agencies,

the USGS Sage Grouse Baseline Report, and Fish and Wildlife's COT Report, which emphasized scale-appropriate and threat-specific conservation measures, and collaboration with stakeholders, including land users, private parties, and State and local governments.

A species as complex as the greater sage grouse requires this level of collaboration, and all interested parties should have a seat at the table, given the broad implications if improper management is carried forward.

Thank you.

[The prepared statement of Ms. Maxwell follows:]

PREPARED STATEMENT OF MEGAN MAXWELL, CONSULTING BIOLOGIST, BROOMFIELD, COLORADO

#### I. INTRODUCTION AND BACKGROUND:

On March 23, 2010 the United States Fish and Wildlife Service [USFWS] issued a Warranted but Precluded [WBP] determination for the Greater sage-grouse (sage-grouse). Loss of habitat and fragmentation due to wildfire, energy development, urbanization, agriculture, and infrastructure development were cited as the primary threats to the species (75 Fed. Reg. 13910 at 13924, 13927–28, 13931). The Bureau of Land Management [BLM] was identified as having a unique opportunity to conserve the sage-grouse through its resource management plans [RMPs] i.e. land use plans, because approximately 52 percent of the sage-grouse habitat is under the BLM's jurisdiction (75 Fed. Reg. 13910). Then on September 9, 2011 USFWS entered into a court-approved settlement agreement with several environmental groups which formalized a schedule for making listing determinations for 251 candidate species nationwide, including the sage-grouse. The court-approved schedule indicates that a decision on whether to list or remove sage-grouse range-wide is due by September 2015 (USFWS, "Endangered Species Act Workplan Fiscal Year 2013 to Fiscal Year 2018—MDL Packages and Other Court Settlement Agreements," at 12) and which seems to be fueling BLM's response to the WBP determination.

In response to the WBP determination to list sage-grouse as a candidate species, BLM chartered the Sage-Grouse National Technical Team [NTT] which was charged with developing policy and management actions in order to manage sage-grouse conservation and protection under its jurisdiction. A *Report on National Greater Sage-Grouse Conservation Measures* (NTT Report) was subsequently published on December 21, 2011. Then 6 days later, on December 27, 2011 the Department of the Interior [DOI] issued Instruction Memorandum [IM] 2012-044 to provide direction to BLM for considering sage-grouse conservation measures, identified in the NTT Report, during the land use planning/National Environmental Policy Act [NEPA] process which was already underway in accordance with the 2011 *National Greater Sage-Grouse Planning Strategy*. IM 2012-044 directs BLM to "consider all applicable conservation measures when revising or amending its RMPs in Greater Sage Grouse habitat. The conservation measures developed by the NTT . . . must be considered and analyzed, as appropriate . . . and incorporated into at least one alternative in the land use planning process." IM 2012-044 also provides for adjustments to the conservation measures in order to take into account local conditions (Department of the Interior, Instruction Memorandum 2012-044 "BLM National Greater Sage-Grouse Land Use Planning Strategy," December 27, 2011).

On November 20, 2012 in the U.S. District Court of Idaho in a hearing on remedies following a decision made on summary judgment in *Western Watershed Project v. Salazar*, No. 4:08-CV-516-BLW, U.S. District Court of Idaho, 2011, docket no. 131 (hereafter *WWP v. Salazar*), the court found during a 3 day evidentiary hearing that BLM's NTT Report represented the "best available science." Then on March 11, 2013 BLM's Assistant Director Edwin Roberson entered a declaration in the U.S. District Court of Idaho indicating that the conservation measures recommended in the NTT Report are being incorporated into 79 RMPs, across 10 States (*Western Watershed Project v. Salazar*, 2013, Roberson declaration). Because this declaration was made while the NEPA process was (and still is) underway to evaluate the impacts associated with implementing the conservation measures in the NTT Report on millions of acres of the public domain, and uses ranging from recreation, to grazing, to mineral and energy development, this declaration was pre-decisional and therefore contrary to the act and its implementing regulations at 40 CFR §§ 1502.2(f), 1500.1(b).

## II. THE NTT REPORT

The NTT Report provides habitat management recommendations for sage-grouse priority habitat across its entire range, including prescriptive restrictions on access and use of lands within priority habitat including:

- Three percent limit on surface disturbance;
- A 50–70 percent sagebrush cover threshold;
- No surface occupancy [NSO];
- One disturbance per section (640 acres);
- Right-of-Way [ROW] exclusion and avoidance areas;
- Mineral withdrawals.

BLM maintains the NTT conservation measures are required to respond to the WBP determination and describes BLM's interpretation of USFWS' finding in the WBP determination that BLM lacks adequate regulatory tools to conserve sage-grouse, and therefore new regulatory mechanisms must be developed. However, throughout the WBP determination USFWS repeats over and over its inability to assess BLM's then existing regulatory mechanisms because of how the information was reported to them, and because of the uneven application and implementation across BLM offices:

“. . . the BLM data call reported information at a different scale than was used for their landscape mapping. Therefore, we lack the information necessary to assess how this regulatory mechanism effects sage-grouse conservation . . .” (Id. at 13976).

USFWS also identified BLM's 2008 *Manual 6840: Special Status Species Management* as potentially having adequate regulatory protections for the sage-grouse:

“As a designated sensitive species under BLM Manual 6840, sage-grouse conservation must be addressed in the development and implementation of RMPs on BLM lands . . . if an RMP contains specific direction regarding sage-grouse habitat, conservation, or management, *it represents a regulatory mechanism that has potential to ensure that the species and its habitats are protected . . . during decisionmaking on BLM lands . . .* However, the information provided to us by BLM did not specify what requirements, direction, measures, or guidance has been included in the newly revised RMPs to address threats to sage-grouse and sagebrush habitat. *Therefore, we cannot assess their value or rely on them as regulatory mechanisms for the conservation of sage-grouse . . . Although RMPs, AMPs, and the permit renewal process provide an adequate regulatory framework, whether or not these regulatory mechanisms are being implemented in a manner that conserves sage-grouse is unclear*” (75 Fed. Reg. 13910 at 13975–77, emphasis added).

USFWS goes on to discuss how it is unable to assess fire management and invasive species management, again, because of the uneven application and implementation across BLM offices (*See Id.* at 13977). It seems clear from the above-cited sections of the USFWS' WBP determination that the agency was seeking evidence that the then current regulatory mechanisms would be implemented and documentation of the effectiveness of those mechanisms. USFWS did not say BLM's regulatory mechanisms were inadequate; nor did the agency demand that BLM develop new regulatory mechanisms. Rather the “Factor D-inadequate regulatory mechanisms” finding was made because of incomplete data given to the agency during the listing process.

The primary objective of the NTT Report is “to protect sage-grouse habitats from anthropogenic disturbances that will reduce distribution or abundance of sage-grouse” (NTT Report at 7). However this objective inappropriately assumes that anthropogenic disturbances are the primary threat to sage-grouse range-wide, are universally negative-regardless of whether impact minimization and mitigation practices are utilized, and that sage-grouse will respond positively to a decrease in anthropogenic disturbances, without providing data to support the assumption. Most importantly, the NTT Report fails to adequately address the fire and invasive species cycle—one of the main threats to sage-grouse habitat range-wide (75 Fed. Reg. 13910 at 13931–4) and the principal threat in the western part of the range.

## III. REVIEW OF THE NTT REPORT

Peer-review of the NTT Report conducted prior to its issuance suggests that it does not in fact represent the “Best Available Science” and instead consists of (NTT Peer Review Comments attached herewith):

- Invalid assumptions;
- Mischaracterization and misrepresentation of sources;
- Omission of existing programs that benefit sage-grouse;
- Personal opinion substituted in place of science;
- Unachievable required design features/best management practices; and
- Policy inconsistent with Federal Land Policy and Management Act of 1976 (FLPMA, 43 U.S.C. 1701 et. seq.) and associated regulations.

The NTT Report also relies on studies which have been criticized for significant mischaracterization of previous research; substantial errors and omissions; lack of independent authorship and peer review; methodological bias; a lack of reproducibility; invalid assumptions and analysis; and inadequate data, leading to considerable flaws in the recommendations contained in the NTT Report (Maxwell 2013, hereafter Maxwell and attached herewith).

Other deficiencies present in the NTT Report and associated studies are the lack of independent authorship, methodological issues, and misleading use of citations. For example, three of the authors of the NTT Report are also the authors, researchers, and editors of three of the most cited sources in the NTT Report. This reliance on a select and limited group of authors is highly questionable because it does not ensure objectivity or consider multiple scientific observations and conclusions, a critical component of the scientific analysis and peer-review process.

Other data quality issues range from failure to identify limiting factors, inadequate sampling, and use of inferior equipment. The significance of these deficiencies is described in detail in R.R. Ramey, *Review of Data Quality Issues in A Report on National Greater Sage-Grouse Conservation Measures Produced by the BLM Sage-Grouse National Technical Team [NTT], Dated December 21, 2011*. Unpublished Report, September 19, 2013, hereafter Ramey 2013.

All of the above mentioned issues call into question the validity of the NTT Report as a whole. Without sound science, and sound application of the science the NTT Report is effectively a species-centric advocacy document. Of particular concern is the “one-size-fits-all” application of the conservation measures which is not the best approach to sage-grouse conservation and may overlook important opportunities to protect and enhance sage-grouse habitat. As described below, particular attention and criticism needs to focus on scale, habitat characterization, disturbance thresholds, and lack of independent peer review.

#### *a. Scale*

The NTT Report proposes conservation measures and goals that are range-wide in scale, including 70 percent canopy cover, 3 percent disturbance cap, and 15–25 percent canopy cover in all sage-grouse habitats. Recommending a “one-size-fits-all approach” is not optimal—if not completely inappropriate and counter-productive at a range-wide scale, because the distribution of sage-grouse populations is vast, encompassing different ecological zones in which there are different kinds of risks to the sage-grouse and its habitat, which must be managed differently. Additionally, sage-grouse behavior indicates sagebrush cover preference differs between seasons, and thus using a single percent cover is inappropriate. As one peer reviewer of the NTT Report states:

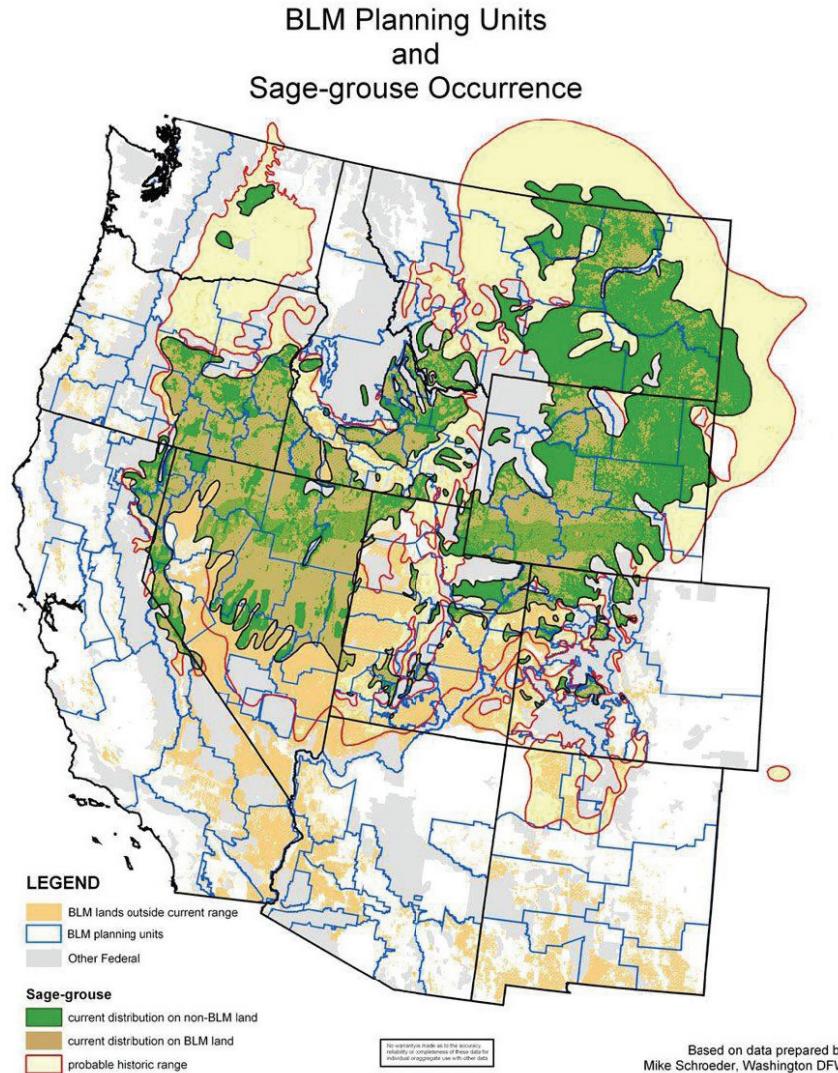
“. . . if this document is to be effective in defining conservation measures on a range-wide basis, it must take into account the considerable large-scale variation in plant community ecology present within the range of the sage-grouse. Otherwise we are faced with species-centric generalizations of the effects of ecological processes that may or may not represent the ecological reality” (NTT Peer Review Comments at 4).

The concern related to scale and “one-size-fits-all” management contained in the NTT Report was expressed in a letter dated May 16, 2013 to Secretary Jewell from the Western Association of Fish and Wildlife Agencies [WAFWA]:

“. . . Simply put, we believe it would represent a setback to sage-grouse conservation . . . Applying a “one-size-fits-all” approach focusing solely on the NTT report is not appropriate for management of the variations that occur across the sage-grouse range . . . Our concern is that using the NTT, in vacuum, would undermine sage-grouse conservation range-wide.”

In an effort to help inform management and conservation strategies so that they are consistent within ecological regions rather than State boundaries, WAFWA delineated seven Management Zones [MZs] based on ecological and geographical similarities (See USGS Report at 10); however the NTT did not recommend use of MZs as an appropriate scale in the NTT Report. The reason why “one-size-fits-all” management is inappropriate for sage-grouse is because of their broad ecological range,

variations in population traits and characteristics across their range, and the variability in habitat conditions and threats within this range. These variations make managing sage-grouse a complex task that must consider site-specific conditions and variables. Simplifying sage-grouse management by creating range-wide habitat prescriptions or percent thresholds fails to target the specific sub-regional and population scale factors which are important because the various sagebrush biomes which support sage-grouse vary, and sage-grouse have varying seasonal habitat requirements within those biomes. For example dense cover and low-growing types of sagebrush might be preferred during nesting, but significantly less dense sagebrush cover and abundance in forbs and grasses might be preferred for late brood-rearing. Additionally, it is important to consider that sagebrush may not be as densely distributed in drier regions than wetter regions as a result of natural processes. The “one-size-fits-all” approach advanced in the NTT Report completely fails to recognize this variation and complexity which is a critical flaw (See the attached map to provide context for the large area that would be subject to the NTT Report).



*b. Habitat Requirements / Thresholds*

To achieve its primary objective the NTT sets forth sub-objectives in the NTT Report. Two of the four sub-objectives assert that a minimum range of 50–70 percent of the acreage in sagebrush cover is required for long-term persistence of sage-grouse, and that discrete anthropogenic disturbances in priority habitat must be limited to less than 3 percent of the total sage-grouse habitat regardless of ownership (NTT Report at 6–7). These objectives are not supported by the literature. Limiting disturbance to less than 3 percent of the total habitat is arbitrary. The NTT fails in its Report to show how the “one-size-fits-all” goal of 50–70 percent sagebrush cover in priority habitat and the 3 percent disturbance cap are necessary, reasonable, achievable, would actually benefit sage-grouse, and not result in unintended adverse consequences to sage-grouse or other species.

Additionally, two of the most frequently used sources with respect to vegetative habitat requirements, provide that “adequate” vegetative cover for sage-grouse, ranges from 15 percent to 25 percent sagebrush cover, greater than 10 percent forbs, greater than 10 percent grass canopy, and even smaller percentages depending on the season or ecological location (Connelly et. al. 2000, and Hagen et. al. 2007). These studies do not include data that support the NTT’s conclusion that 50–70 percent sagebrush canopy is required by sage-grouse range-wide or within all seasonal habitats in order to persist.

In addition, the 70 percent canopy cover goal disregards the importance of healthy understories required for sage-grouse to survive and rear broods, and fails to consider the fact that not all sagebrush habitats are suitable; without healthy understories a sagebrush dominated landscape may in fact be unsuitable to support sage-grouse. This is a significant omission that must be addressed in order for the conservation measures to be scientifically sound. As the NTT Report stands now, omitting discussion of understory health will result in unintended, adverse consequences to sage-grouse and the sagebrush ecosystem, including increased risk of fire (See Maxwell at 5–6).

In addition to the potential for increased fire resulting from inadequate management of understory vegetation, there is substantial scientific authority showing the importance of understory to sage-grouse. Grass height and cover are important for adequate nesting habitat. Early brood-rearing habitats are best when they contain abundant forbs and insects for foraging, with a 14 percent sagebrush canopy cover (Connelly et. al. 2000).

In a report published by the United States Geological Survey [USGS] at the request of the BLM, and in response to the WBP determination, USGS indicates that habitat fragmentation “generally begins to have significant effects on wildlife when suitable habitat becomes less than 30 to 50 percent of the landscape” (Manier et al 2013 at 26, hereafter USGS Report). The corollary is that non-suitable habitat, does not have a significant effect on wildlife until it reaches 50–70 percent of the landscape, which directly contradicts the NTT Report’s 70 percent cover threshold.

The USGS Report further calls into question the sagebrush cover objective in the NTT Report with this statement:

“The natural variation in vegetation, the dynamic nature of sagebrush habitats, and the variation in the habitats selected by sage-grouse across a landscape imply that characterizing habitats using a single value or narrow range of values, for example, 15- to 25-percent sagebrush-canopy cover in breeding habitat (*Citation omitted*), is insufficient to describe sage-grouse habitat requirements. The differing seasonal habitat requirements of sage-grouse dictate that multiple vegetation attributes, across the landscape and in particular sites, are important, reinforcing emphasis that combinations of shrub overstory and herbaceous understory, which are both important as habitat components during different seasons, are important in combination and across scales” (USGS Report at 24, internal citation omitted).

The 3 percent disturbance cap is not supported by the data either, and instead represents the authors’ opinions in the cited studies. Outside review of the studies indicate that three of the sources cited in favor of a 3 percent disturbance cap (Johnson et al. 2011; Naugle et al. 2011a, b; and Walker et al. 2007), only represented partial review of the available literature while omitting important factors and other studies, and utilized weak and/or flawed study parameters (See Ramey 2013).

Interestingly, the scientific validity of the 70 percent cover goal and 3 percent disturbance threshold were called into question by Department of the Interior [DOI] employees during the preparation of the NTT Report, yet the team chose to recommend the arbitrary thresholds anyway (italics used for emphasis):

"... Science says 30–50 percent in non-sagebrush cover is OK (see quote below [underlined]), but the NTT Report says 3 percent in anthropogenic features is the NTT recommended maximum . . . Am I missing something, is it worded poorly, or is this a misapplication of professional judgment and science . . . The report now makes this scientifically based assertion: *Within priority habitat, a minimum range of 50–70 percent of the acreage in sagebrush cover is required for long-term sage-grouse persistence* (Aldridge et al. 2008, Doherty et al. 2010, Wisdom et al. 2011). That leaves an allowance of 30–50 percent in non-sagebrush cover. So how was the 3 percent maximum cap on surface anthropogenic features derived based on "professional judgment"? (See footnote) 3 percent is a long way from 30–50 percent? . . ." (Email correspondence from Jim Perry to Raul Morales and Dwight Fielder, December 22, 2011. Information was obtained from a FOIA response by Department of the Interior, Bureau of Land Management, and Office of the Solicitor to a request by Idaho Governor Otter's office, hereafter FOIA Response).

Mr. Perry goes on to state through email correspondence "The NTT bullet points above (regarding 3 percent anthropogenic disturbance caps) need to be removed from the report as it conflicts with science" (FOIA Response, December 22, 2011).

The USGS Report further challenges the NTT Report's broad assertion that disturbance negatively impacts sage-grouse and sagebrush habitats in all instances, and instead acknowledges that:

"[t]hough the presence and distribution of suitable sagebrush habitats is limited at landscape scales, precluding the need for disturbances to intact sagebrush communities . . . maintenance of healthy sagebrush communities includes some localized disturbance in many regions" (USGS Report at 79, internal citation omitted).

The NTT Report recommends several "one-size-fits-all" regulatory prescriptions (i.e. 4 mile buffers, 3 percent disturbance threshold, and Best Management Practices), and makes no allowance for recommendations to include local level sage-grouse conservation plans which are tailored to local conditions, including unique habitat and threats, and socio-economic conditions. Local conditions and local efforts are factors which should be considered when designing a conservation strategy to better ensure effectiveness. For example, requiring surface use restrictions in an area where fire and invasive species are the primary threats may not benefit sage-grouse as much as fire suppression and invasive species eradication mechanisms.

#### *c. Failure To Incorporate or Recognize Current Regulatory and Conservation Measures*

The lack of discussion related to current State and local level sage-grouse plans, and other conservation efforts that are protective in nature represents a departure from the notion that States are the experts in managing and regulating wildlife within their boundaries. An example of the NTT's failure to consider existing conservation and regulatory efforts is demonstrated by the omission of the State of Wyoming's EO 2008–2 in the NTT Report. The WBP determination recognized this EO for providing "substantial regulatory protection for sage-grouse in previously undeveloped areas on Wyoming State lands" (75 Fed. Reg. 13910 at 13974). These protections would also apply to energy development and permitting on all lands located within the State; however they were not mentioned anywhere in the NTT Report. One of the NTT's main conservation strategies is to prevent future energy development in priority habitat (NTT Report at 21). For this reason, the NTT's failure to consider current protections that are recognized in the WBP decision to "ameliorate threats" to sage-grouse (from new energy development) once fully implemented, is inappropriate.

Significant literature exists regarding the importance of voluntary conservation measures by private citizens and industries, and other voluntary incentive based programs with respect to the recovery of ESA species, yet the NTT seems ardent in continuing "command and control" management, which has largely failed, as evidenced by the few species that have been de-listed (See, Ramey 2013; USGS Report).

On the other hand, USFWS in its March 2013 report titled *Greater Sage-grouse (Centrocercus urophasianus) Conservation Objectives: Final Report* (hereafter COT Report) recommends that State conservation plans/strategies be deferred to when they are effective, and that proactive measures be taken by Federal agencies to initiate voluntary incentive based programs (COT Report at 33–36).

The NTT Report provides no discussion of current regulatory mechanisms available to BLM including the considerable provisions contained in Manual 6840: *BLM's Special Status Species Management* and the unnecessary and undue degradation provisions under § 302(b) of FLPMA and associated regulations.

The NTT Report fails to explain or analyze how existing conservation measures put in place pursuant to Manual 6840, FLPMA § 302(b) are either adequate or inadequate to conserve sage-grouse, nor does it explain the need for an entirely new regulatory approach. If the inadequacies are a result of failure or uneven implementation of conservation measures, the NTT inappropriately discards an existing agency policy and on-the-ground efforts (assuming BLM followed its own policy) without ever justifying the changes advanced in the NTT Report. Further, if BLM failed to implement conservation efforts pursuant to Manual 6840 or other regulatory mechanisms, it could be considered “agency action unreasonably delayed,” and BLM should be compelled to implement its own policy (*WWP v. Salazar*, “the Court found that the Craters EIS violated NEPA and FLPMA by failing to adequately address . . . BLM’s own Special Status Species Policy . . .” at 2).

In addition, the NTT Report’s conservation measures are inappropriate because both the USFWS and USGS have published new data and recommendations, which post-date and in some cases conflict with the recommendations in the NTT Report.

#### *d. Legal Issues*

The NTT Report is fraught with substantial legal and scientific flaws, which again, were recognized by DOI employees and discussed in internal emails questioning the legality of some of the conservation measures recommended in the NTT Report:

“. . . But, does the NTT really want to recommend something that is blatantly illegal?” (FOIA Response, email correspondence from Dwight Fielder, December 21, 2011)

Peer Review of the NTT Report also recognized misrepresentation of sources:

“This seems a strange blend of policy loosely backed by citations, with no analysis of the science.” (NTT Peer Review Comments at 2)

Regrettably, DOI decisionmakers did not heed warnings like this from DOI staff and peer reviewers and proceeded with publishing the NTT Report knowing that there were significant internal concerns about the report.

The NTT Report creates policies that assume that sage-grouse conservation is the highest and best use of the land (See NTT Report at 6–7), while subordinating other interests, without adequate analysis of the economic impacts these policies will have on communities, small businesses, and industry, and ultimately creates a species-centric policy on BLM lands, which is contrary to the multiple use and sustained yield provisions under FLPMA (43 U.S.C. § 1712(c)). DOI employees who were involved with developing the NTT Report recognized some of these flaws in internal emails between them:

“. . . Overall, the NTT Report conservation measures (planning prescriptions) are complete game-changers for any actions within the Priority Habitats where there are valid existing rights and showstoppers for those actions where there are no valid existing rights . . .” (FOIA Response, email correspondence from Jim Perry, December 20, 2011).

#### *1. FLPMA*

In enacting FLPMA in 1976, Congress directed the Secretary of the Interior to consider a broad range of resource issues, land characteristics, and public needs and values in determining how public lands should be managed. FLPMA directs BLM to manage public lands for multiple uses and to consider a wide range of resource values including the need to protect wildlife and quality of the environment. Section 102(a)(8) requires BLM to manage the public lands in a “manner that will protect the *quality* of scientific, scenic, historical, ecological, environmental . . . values” (U.S.C. 1701(a)(8), emphasis added), while section 102(a)(7) establishes multiple use and sustained yield land management directives and requires the Secretary to develop “. . . goals and objectives (that are) established by law as guidelines for public land use planning, and that management be on the basis of multiple use and sustained yield unless otherwise specified by law” (U.S.C. 1701(a)(7)). In defining the term “multiple use” FLPMA section 103(c) directs the Secretary to ensure:

“. . . the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; making the most judicious use of the land for some or all of these resources . . . to conform to changing needs and conditions; the use of some land for less than all of the resources; a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but

not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values.” (43 U.S.C. § 1702(c)).

Therefore, under the multiple use and sustained yield requirements, BLM must strike an appropriate balance between potentially competing interests while considering the needs for *all* species, and land management objectives. This balance is to be achieved in the section 102 land use planning process and the resulting RMPs. FLPMA does not authorize the subordination of any of these uses in preference for a single land use such as sage-grouse habitat conservation. Thus applying an emphasis on one resource, sage-grouse, across 47 million acres of sage-grouse habitat is not consistent with FLPMA; BLM must consider how the sage-grouse centric management contained in the NTT Report is appropriate in the context of other special status species, especially the habitat prescriptions and, fire and invasive species management.

IM 2012-044, the implementing mechanism for the NTT Report, asserts that:

“When considering the conservation measures in (the NTT Report) through the land use planning process, *BLM offices should ensure that implementation of any of the measures is consistent with applicable statute and regulation*. Where inconsistencies arise, BLM offices should consider the conservation measure(s) to the fullest extent consistent with such statute and regulation” (emphasis added).

The “one-size fits-all” habitat prescriptions is not consistent with FLPMA’s specific directive pertaining to protecting *quality* of environmental and ecological values described above because it assumes what is good for northeastern Montana is good for western Nevada, despite their ecological differences.

#### *1. NEPA*

The principle of informed decisionmaking is the primary purpose of NEPA, and is intended to be used as a tool during the planning and decisionmaking process. As such, an EIS should not be used to justify decisions that have already been made and “*[a]gencies shall not commit resources prejudicing selection of alternatives before making a final decision*” (40 CFR §§ 1502.2(f), emphasis added). Nevertheless, BLM has already decided to incorporate the NTT conservation measures into 79 of its RMPs prior to issuance of the Final EIS documents (*See WWP v. Salazar, Roberson Decl.*). BLM’s failure to include consideration and detailed analysis of conservation measures other than those in the NTT Report represents a pre-determined decision by BLM to implement the NTT conservation measures without giving proper and detailed analysis to alternative conservation measures or policy including the specific directives contained in Manual 6840, which seems odd in light of the decision made in *WWP v. Salazar* where the Court found that BLM violated NEPA and FLPMA by disregarding existing BLM policy.

#### IV. CONCLUSION

The technical and policy flaws contained in the NTT Report are considerable and must be addressed before it is fully implemented as the “one-size-fits-all” approach will produce misguided land management policies that will not benefit sage-grouse range-wide. Such policies will not provide the best approach to sage-grouse habitat conservation and enhancement because sage-grouse conservation measures must be custom-tailored to reflect site-specific conditions. In some situations—especially in the case of the invasive species, fuel and fire-management, the NTT Report does not adequately address the primary threat to sage-grouse habitat in the western part of the range (e.g., the invasive species—wildfire cycle), which is currently an under-managed problem on public lands. The failure to address this problem in the NTT Report could result in ecologically devastating consequences, while broad application could conflict with FLPMA and other laws.

#### Attachments

NTT Peer Review Comments.

Maxwell, M. *BLM’s NTT Report: Is It the Best Available Science or a Tool to Support a Pre-Determined Outcome?*, Northwest Mining Association (2013).

BLM Planning Units and Sage-Grouse Occurrence Map.

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## **BLM's NTT Report: Is It the Best Available Science or a Tool to Support a Pre-determined Outcome?**

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(Megan Maxwell)  
5/20/2013

This document was prepared for use by the Northwest Mining Association. Nothing in this report  
should be construed as legal advice.

Questions or comments regarding this document should be directed to: Megan Maxwell

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## EXECUTIVE SUMMARY

On March 23, 2010 the United States Fish and Wildlife Service [USFWS] issued a Warranted But Precluded (WBP) determination for the Greater sage-grouse, and gave the bird a Listing Priority Number [LPN] of 8, where 1 represents species with the most dire need for listing and 12 representing species with substantially less priority. Loss of habitat and fragmentation due to wildfire, energy development, urbanization, agriculture, and infrastructure development were cited as the primary threats to the species (75 Fed. Reg. 13910). The annual Candidate Notice of Review, allows the USFWS to change the LPN of candidate species in response to varying circumstances. The 2012 Candidate Notice of Review maintained a LPN of 8 for the Greater sage-grouse (77 Fed. Reg. 69994, Nov. 21, 2012 @ 70015).

The 2010 listing determination identifies the habitat management and species conservation measures in the Bureau of Land Management's [BLM's] 2008 *Manual 6840: Special Status Species Management* as potentially having adequate regulatory protections for the Greater sage-grouse:

“If an RMP contains specific direction regarding sage-grouse habitat, conservation, or management, *it represents a regulatory mechanism that has potential to ensure that the species and its habitats are protected . . . during decision-making on BLM lands*” (75 Fed. Reg. 13910 at 13976, emphasis added).

Manual 6840 if implemented properly into Resource Management Plans [RMPs] and if the results of the conservation measures were adequately documented, would constitute an adequate regulatory mechanism, satisfying the provisions under the Endangered Species Act [ESA]. Further, RMPs that include conservation measures pursuant Manual 6840, and that provide for proper implementation and monitoring of the conservation measures, as well as adaptive management protocols to adjust for conservation measures that are not meeting the desired on-the-ground effect, could and should be subject to the Policy for the Evaluation of Conservation Efforts [PECE]. However, USFWS apparently could not consider these measures during the listing process, including the WBP determination for the Greater sage-grouse, due to a lack of certainty of how the conservation efforts would be implemented into RMPs (*See Generally*, 75 Fed. Reg. 13910):

“. . . However, the information provided to us by BLM did not specify what requirements, direction, measures, or guidance has been included in the newly revised RMP’s to address threats to sage-grouse and sagebrush habitat. Therefore, we cannot assess their value or rely on them as regulatory mechanisms for the conservation of sage-grouse . . .” (75 Fed. Reg. 13910 at 13976).

In response to the WBP determination to list Greater sage-grouse as a candidate species, BLM published, *A Report on National Greater Sage-Grouse Conservation Measures* [NTT] and started the National Environmental Policy Act process to amend numerous RMP’s throughout 11 Western States to evaluate the impacts associated with implementing the conservation measures recommended in the NTT. BLM maintains the NTT conservation measures are required to respond to the WBP determination and describes USFWS’ finding in the WBP determination that BLM lacks adequate regulatory tools to conserve Greater sage-grouse. The NTT does not use Manual 6840 or ESA as a foundation upon which to build. In fact, it never even references Manual 6840 or the ESA, nor does it explain the need for an entirely new regulatory approach. As such, it inappropriately discards an existing agency policy without ever justifying the radical change advanced in the NTT, and is thus arbitrary and capricious.

Prior to USFWS’ determination that the Greater sage-grouse warranted listing as a candidate species, and prior to BLM’s issuance in 2008 of Manual 6840, the BLM had issued a 2004 guidance document that specifically addressed the management of sagebrush habitats, and how to integrate conservation measures that would be consistent with its management mandate under the Federal Land Policy Management Act and the National Environmental Policy Act. A reasonable response to the WBP determination by BLM would have been to simply implement Manual 6840 and the 2004 guidance, and then provide the USFWS with evidence of their implementation and effectiveness pursuant to PECE. Instead, BLM responded with the NTT. The NTT does not appear to be based on reasonable consideration of the regulatory tools BLM already has, like Manual 6840, multiple authorities to require project-specific wildlife protection and habitat enhancement measures, and private-on-the-ground conservation efforts.

The NEPA process requires an agency to rigorously explore and *objectively* evaluate all reasonable alternatives so that decisionmakers and the public are fully informed and is intended to be used as a tool during the planning and decisionmaking

process (40 CFR §§ 1502.14(a), 1502.14(b), (d)). Substantial case law exists regarding the range of alternatives that need to be included in an Environmental Impact Statement [EIS], and “[t]he existence of a viable but unexamined alternative renders an environmental impact statement inadequate (*Resources Ltd. v. Robertson*, 35 F.3d 1300, 1307 (9th Cir. 1993)). To that end, failing to include full implementation of Manual 6840 and the 2004 Guidance as an alternative in the Draft EIS documents is arbitrary and capricious, and the Draft EIS documents should not be published for public review until full analysis of this alternative is included. Further, an EIS should not be used to justify decisions that have already been made and “[a]gencies shall not commit resources prejudicing selection of alternatives before making a final decision” (40 CFR §§ 1502.2(f), 1500.1(b)) (emphasis added). Nevertheless, BLM has already decided to incorporate the NTT conservation measures into 79 of its RMP’s prior to issuance of the FEIS and is in direct violation of NEPA (*Western Watershed Project v. Salazar*, No. 4:08-CV-516-BLW, U.S. District Court of Idaho, 2013, decl.).

During the peer-review period for the NTT multiple peer reviewers criticized the applicability of the NTT due to misapplication of the science and omission of existing Federal and State regulatory programs that could be used to conserve sage-grouse and its habitat. As a result the NTT would not likely withstand scrutiny under PECE.

Additional research shows inadequacies in the science itself. Limited analysis of the science used in creating the NTT, as well as the science used in the WBP determination has shown that there has been:

- Significant mischaracterization of past research;
- Methodological bias;
- Substantial errors and omissions;
- Lack of independent authorship and peer review; and
- Substantial technical errors.

These issues call into question whether the “Best Available Science” was in fact used to establish the conservation measures in the NTT, and the validity of the NTT as a whole. To that end, flawed science will lead to flawed species-centric policy, like that in the NTT.

#### INTRODUCTION

On March 23, 2010 the U.S. Fish and Wildlife Service [USFWS] issued a Warranted but Precluded [WBP] determination for the Greater sage-grouse (sage-grouse) after repeated and successful litigious activities regarding the status of the species. Loss of habitat and fragmentation due to wildfire, energy development, urbanization, agriculture, and infrastructure development were cited as the primary threats to the species (75 Fed. Reg. 13910 at 13924, 13927–28, 13931). The Bureau of Land Management [BLM] was identified as having a unique opportunity to conserve the sage-grouse through its resource management plans [RMP’s] i.e. land use plans, because reportedly 51 percent of the sage-grouse habitat is under the BLM’s jurisdiction (75 Fed. Reg. 13910 at 13975). In response to the potential listing, BLM chartered the Sage-Grouse National Technical Team who was charged with developing policy on how to manage sage-grouse conservation and protection under its jurisdiction, and against which all BLM activities would be measured. A *Report on National Greater Sage-Grouse Conservation Measures [NTT]* was subsequently published on December 21, 2011. Then on March 11, 2013 BLM’s Assistant Director Edwin Roberson entered a declaration in the U.S. District Court of Idaho (*Western Watershed Project v. Salazar*, No. 4:08-CV-516-BLW, U.S. District Court of Idaho, 2013, decl.) indicating that the NTT conservation measures are being incorporated into 79 RMP’s, across 10 States affecting millions of acres of the public domain, and uses ranging from recreation, to grazing, to mineral and energy development.

During the peer-review period for the NTT, multiple reviewers criticized the applicability of the NTT, especially with respect to habitat requirements/threshold values, scale, and failure to incorporate existing regulatory and conservation efforts into the NTT, including lack of consideration of the Policy for the Evaluation of Conservation Efforts [PECE]. Additional research shows inadequacies in the science used to support decisions made in the NTT, mischaracterization, and insufficient reference citations. These issues call into question, both whether the “Best Available Science” was in fact used, and the overall validity of the NTT.

#### A. PEER REVIEW COMMENTS

The peer reviewer comments and issues can be categorized into three main areas of concern: (1) habitat requirements/threshold values; (2) scale; and (3) failure to in-

corporate existing regulatory and conservation efforts into the NTT. The peer review comments may be reviewed in their entirety in Appendix A (attached herewith).

### *1. Habitat Requirements/Threshold Values*

The NTT authors attempted to resolve the peer reviewers' issue related to habitat and scale by adding "Appendix A" to the report which was intended to provide "context" for the conservation measures. "Appendix A" is an excerpt from the WBP determination describing the life history requirements of sage-grouse. The peer reviewers were particularly concerned about the threshold values present throughout the NTT, because they represent a one-size-fits-all approach. In terms of ecology, one-size-fits-all is not considered sound, because there are variable risks and limiting factors present across the range, which would warrant different conservation approaches. The information contained in "Appendix A" does not provide any information to support the threshold values contained in the NTT, and might even produce contrary results if applied across the range. For example, one peer reviewer notes that 20 percent sagebrush cover is not necessarily "healthier" than an area that has 10 percent sagebrush cover and good grass densities. Another peer reviewer states, "[i]n many areas site potential will be below 15 percent so this blanket statement seems a little irrelevant. Why not say the sagebrush will not be reduced below site potential . . ." (NTT Peer Review Comments at 16).

The primary objective of the NTT is "to protect sage-grouse habitats from anthropogenic disturbances that will reduce distribution or abundance of sage-grouse" (NTT at 7). To achieve the primary objective the NTT sets forth sub-objectives. Two of the four sub-objectives assert that 70 percent of the range within priority habitat needs to provide "adequate" sagebrush habitat to meet sage-grouse needs, and that discrete anthropogenic disturbances in priority habitat be limited to less than 3 percent of the total sage-grouse habitat *regardless of ownership* (NTT at 7). These objectives are not supported by the literature.<sup>1</sup> Two of the most frequently used sources with respect to vegetative habitat requirements, provide that "adequate" vegetative cover for sage-grouse, ranges from 15 percent to 25 percent sagebrush cover, >10 percent forbs, >10 percent grass canopy, and even smaller percentages depending on the season or ecological location (Connelly et. al. 2000, Hagen et. al. 2007). Absent from these studies is data to support the NTT's conclusion that 70 percent of the range within priority habitat must provide "adequate" habitat in order for sage-grouse to persist. Limiting disturbance to less than 3 percent<sup>2</sup> of the *total* habitat is not scientifically supported, nor is it reasonable to assume this limit is even possible given the likely variances in ownership and jurisdiction across the *total* habitat, and it also creates issues in terms of PECE review, discussed below.

The peer reviewers concerns related to the lack of discussion on limiting habitat does not appear to have been adequately addressed, and is a significant omission because it fails to provide a mechanism for prioritizing management efforts and assumes the same risks are representative across the entire range. The NTT and "Appendix A" fail to provide reason or support for consolidating all<sup>3</sup> sage-grouse seasonal habitat range-wide, regardless of relative importance or quality to sage-grouse populations.

### *2. Scale*

The NTT appears to have added a short discussion on spatial and temporal scales in an attempt to address the peer reviewers' concerns, but again, it falls short. When choosing what scale to use in aiding management decisions, it is important to limit the size, as to reduce variables, which is why using a range-wide scale is inappropriate. However using too small a scale is also problematic because it can be too limiting, as in the case of the NTT, where the discussion focuses on measuring disturbance at the priority habitat scale and each 1-mile section within a priority area. Measurements taken at these scales ignore the concerns by the peer reviewers related to the applicability of range-wide conservation measures, and instead appears to provide some kind of justification for using specific, one-size-fits-all disturbance thresholds. All that said if a spatial scale were at a management zone level as opposed to a priority habitat level, it would still limit the ecological

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<sup>1</sup>The NTT uses three sources to support its 70 percent threshold. However, the NTT has mischaracterized the results of these studies. The misuse of these studies is discussed in detail, *infra* Section B.

<sup>2</sup>Based on the reviewer comments, it appears that this threshold value was originally set at 2.5 percent. However, the reviewer states that 2.5 percent is not supported by research, and that the only percentage value he knew of was 1 percent.

<sup>3</sup>Sage-grouse habitat varies seasonally. Habitat used in the winter has different vegetative requirements than breeding, nesting, or brood-rearing habitats, for example. Thus assuming that all habitats should be treated the same, with a one-size-fits-all approach is improper.

variables otherwise present range-wide, and could still provide managers with specific conservation measures that might be applicable at a broader management zone scale, while still allowing some use that might otherwise be restricted at a smaller scale.

The issue of scale is repeatedly identified throughout the reviewers' comments, with particular concern for the broad application and one-size-fits-all approach toward conservation. This presents a major issue because the distribution of sage-grouse populations is vast, encompassing different ecological zones which have different risks to the sage-grouse and its habitat. For example, in the Great Basin invasive plants and altered fire regime have resulted in loss of habitat (75 Fed. Reg. 13190 at 13933). The conservation measures that are best suited to deal with these issues should not be assumed to be necessary where these risks do not exist, like in Wyoming where habitat fragmentation due to energy development is considered the greatest threat. As one reviewer states:

"If this document is to be effective in defining conservation measures on a range-wide basis, it must take into account the considerable large-scale variation in plant community ecology present within the range of the sage-grouse. Otherwise we are faced with species-centric generalizations of the effects of ecological processes that may or may not represent the ecological reality" (NTT Peer Review Comments at 4).

Again, the peer reviewers warn against the rigidity of the NTT's conservation measures and their applicability range-wide. The NTT has not addressed these concerns nor has it provided scientific authority supporting its decisions as noted by one reviewer:

"This seems a strange blend of policy loosely backed by citations, with *no analysis of the science*" (NTT Peer Review Comments at 2, emphasis added).

To that end, analysis of the science would show that conclusions were made on the basis of improper interpretation of the data, especially with respect to policy and management recommendation's, calling even more question to the validity of the NTT's policies.

#### *a. Inadequacies of the Science*

Research and analysis of the science used in creating the NTT as well as the science used in the WBP determination have shown that there has been significant mischaracterization of past research, methodological bias, substantial errors and omissions, and lack of independent authorship and peer review; leading to considerable flaws in the science (*See Generally, Science or Advocacy? Ecology and Conservation of Greater Sage-Grouse: A Landscape Species and its Habitats: An Analysis of the four most influential chapters of the monograph* Center for Environmental Science, Accuracy and Reliability, hereafter CESAR 2012).

Understanding the problems with the WBP determination is important because it is one of the most frequently cited sources in the NTT, and analysis has shown that the science used in making the WBP determination is considerably flawed. The CESAR report reviewed and analyzed four of the most frequently cited sources used by USFWS in its WBP determination. Each source is a chapter derived from the *Cooper Ornithological Society's Monograph: Studies in Avian Biology* (monograph). The CESAR report indicates that this monograph was specifically developed to aid the USFWS in its WBP determination for the sage-grouse, raising the question whether the monograph was written to push a specific agenda: listing the sage-grouse as threatened or endangered. The CESAR report makes several alarming conclusions that the WBP listing determination is based on:

- Significant mischaracterization of previous research;
- Substantial errors and omissions;
- Lack of independent authorship and peer review;
- Methodological bias;
- A lack of reproducibility;
- Invalid assumptions and analysis; and
- Inadequate data.

Like the WBP determination, the NTT relied heavily on the monograph to support its choices. In fact, the NTT uses 16 of the monograph's chapters, 3 of which the CESAR report included in its analyses.<sup>4</sup> Specifically, the Knick et. al. chapter titled,

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<sup>4</sup> While the CESAR report did not analyze all the chapters of the monograph, the same conclusions are expected to be present throughout the monograph, primarily due to methodological bias and lack of authorship and peer review which undermines the process significantly. The

*Ecological Influence and Pathways of Land Use in Sagebrush*, was frequently cited in the NTT. The CESAR report found that in this chapter, omission of limiting factors, mischaracterization of previous research, and lack of reproducibility was present and states “Knick et al. do not accurately represent the results of cited authors but rather substitute their own values to delineate the effect area for each type of human activity.” CESAR concludes its analysis on this chapter with, “this study also fails the litmus test of sound scientific research since the results are not repeatable and verifiable.”

Other examples of the deficiencies noted in CESAR that are replicated in the NTT and associated studies are the lack of independent authorship, methodological issues, and misleading use of citations. For example, three of the authors of the NTT are also the authors, researchers, and editors on three of the most cited sources in the NTT. This reliance on a select and limited group of authors is highly questionable because it does not allow for objectivity or multiple scientific observations and conclusions, a critical component of the scientific analysis and peer-review process.

The policy conclusions drawn from the research are also questionable due to methodological flaws in the research of sage-grouse. For example, a study where analysis evaluates relative importance of breeding areas to one another conducted on high density populations, cannot yield reliable conclusions on low density populations, which one study<sup>5</sup> used by the NTT attempts to do. This is also true when small sample populations are used to draw conclusions to be applied range-wide.

Other frequent omissions in the research of sage-grouse fail to incorporate limiting factors into the analyses. The significance of limiting factors is important because scientifically drawn conclusions that would support a particular policy choice cannot be confidently made without recognition of what might be producing an observed result. Identifying limiting factors is typically one of the first steps in identifying a problem, but if those are not recognized then there can be little confidence that the proposed “answer,” in this case conservation measure, will be successful. For example, a study which seeks to provide information on survival rates of nestlings must consider outside influences that might affect survival rates such as drought, natural predation, and temperature; all are limiting factors that may exacerbate or yield results that would show a low survival rate. If these limiting factors are not considered, then a conclusion showing that low survival rate is influenced by energy development, would not be sufficiently reliable<sup>6</sup> on which to base a policy choice.

The NTT also omits discussion on the importance of understory to sagebrush ecosystems and sage-grouse, with a focus on sagebrush canopy. This is a significant omission that must be addressed in order for the conservation measures to be scientifically sound. As the NTT stands now, omitting discussion of understory health will result in unintended consequences. As some reviewers note:

“. . . Remember, good long lived perennial grass densities are the best way to suppress cheatgrass fuel loads that is critical in protecting sagebrush habitats. The 20 percent big sagebrush cover may very well be suppressing the much needed long-lived perennial grasses . . .” (NTT Peer Review Comments at 10).

“. . . If the result of no grazing is increased risk of fire, then it might be worth reconsidering.”<sup>7</sup> (NTT Peer Review Comments at 14).

“Are you going to sit back and have catastrophic wildfires dictate your outcome? . . . Are winter ranges a constant vegetation type? No, so why would you state such an objective? . . . This type of passive management is helping further degrade critical habitats . . .”<sup>8</sup> (NTT Peer Review Comments at 17).

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publication dates of the monograph differ between the CESAR report and the NTT due to draft publication and final publication. Reportedly, only minor changes were made between the draft and final monograph, no substantive content was changed. Therefore the CESAR conclusions remain accurate.

<sup>5</sup> See Kevin Doherty et. al., *Energy Development and Conservation Tradeoffs: Systematic Planning for Greater Sage-Grouse in Their Eastern Range*. Pages 505–516 in S.T. Knick and J.W. Connelly (editors). Greater Sage-Grouse: ecology and conservation landscape species and its habitats. Studies in Avian Biology (Vol. 38), University of California Press, Berkeley, Ca (2011).

<sup>6</sup> The NTT attempts to provide justification for the science used in the report by providing Appendix B: Scientific Inference. While inference is commonly made in scientific research the methodology used in the study must be sound.

<sup>7</sup> The reviewer in this instance was commenting on retiring grazing privileges. However responsible grazing practices can improve understory health and reduce fire.

<sup>8</sup> The reviewer was commenting on the conservation measure that provides, “no treatments will be allowed in known winter range.”

*“. . . The removal of livestock will most likely result in bunchgrass/fuel loads in the mountain brush habitat. These fuel loads will probably result in increased wildfires in these habitats and will burn critical sagebrush communities”<sup>9</sup> (NTT Peer Review Comments at 12).*

*“. . . This may be fine for high elevation sites, but I strongly disagree for low elevation sites, where annual grasses are the biggest threat to ecological integrity ...”<sup>10</sup> (NTT Peer Review Comments at 4).*

In addition to the reviewers concerns related to the potential for increased fire resulting from inadequate management of understory vegetation, there is substantial scientific authority showing the importance of understory to sage-grouse. In fact, grass height and cover are important for adequate nesting habitat, and early brood-rearing habitats are best when they are abundant in forbs and insects for foraging, with a 14 percent sagebrush canopy cover (Connelly et. al. 2000). However, the NTT implies that restoring sagebrush canopy to 15–25 percent is appropriate in all habitats, all the time (*See Generally* NTT), which is simply not true.

The CESAR findings, questionable methodologies used in other studies cited in the NTT, and inappropriate application of the science raise significant questions as to the validity of policy decisions in the NTT. Without sound science and sound application of the science, the NTT report is effectively a species-centric advocacy document.

### *3. Failure to Incorporate or Recognize Current Regulatory and Conservation Measures*

The peer reviewers recognized the lack of discussion related to current State level sage-grouse plans, and other regulatory mechanisms that are protective in nature, as well as the complete disregard of Federal Land Policy Management Act [FLPMA] and PECE considerations. The NTT report failed to address these concerns in any way except to say that management actions taken by the BLM would be in concert with other agencies, State and local governments, and private owner actions (NTT at 4).

#### *a. Existing Regulatory Measures*

An example of BLM's failure to consider existing conservation and regulatory efforts is demonstrated by the NTT's omission of the State of Wyoming's EO 2008–2. The WBP determination recognized this EO for providing “substantial regulatory protection for sage-grouse in previously undeveloped areas on Wyoming State lands;” (75 Fed. Reg. 13910 at 13974) these protections would also apply to energy development and permitting on *all* lands located within the State; however it was not mentioned anywhere in the NTT. One of the NTT's main conservation strategies is to prevent future energy development in priority habitat (NTT at 21). For this reason, the NTT's failure to consider current protections that are recognized in the WBP decision to “ameliorate threats” to sage-grouse (from new energy development) once fully implemented, is inappropriate.

The NTT states that “management priorities will need to be shifted and balanced to *maximize benefits* to sage-grouse habitats and populations in priority habitats” (NTT at 6–7, emphasis added). Throughout the NTT there are instances like this where there is an assumption that the protection of sage-grouse is the highest and best use of the land and ultimately creates a species-centric policy on BLM lands, which is contrary to the multiple use and sustained yield provisions, and criteria that must be considered when developing land use plans provided for under FLPMA (43 U.S.C. §§ 1712(c)).

One reviewer calls attention to the USDA–NRCS National Conservation Practices Guide (used for grazing practices) that could be used with a focus on sage-grouse habitat, or address grazing threats to sage-grouse habitat through allotment management plans, instead of reinventing the wheel for grazing practices through the NTT. But perhaps more importantly, is the lack of discussion related to BLM's Manual 6840 (Manual).

#### *1) BLM Manual 6840*

Manual 6840 was revised and re-issued in December 2008. The purpose of the Manual is to establish policy for the management of species listed or proposed for listing under the Endangered Species Act [ESA] and for “sensitive species” on BLM

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<sup>9</sup>The reviewer was commenting on the conservation measure that would retire grazing privileges. However responsible grazing practices can improve understory health and reduce fire.

<sup>10</sup>The reviewer was commenting on the provision under Emergency Stabilization and Rehabilitation section of the NTT where it states, “Re-establishment of sagebrush over-stories shall be the highest priority for rehabilitation . . .”

lands. It contains guidance on how to designate and ensure for the conservation of “sensitive species” (i.e.; “special status species,” like sage-grouse). One of the objectives in the Manual is to “initiate proactive *conservation measures* that reduce or eliminate threats to Bureau sensitive species to minimize the likelihood of and need for listing of these species under the ESA” (Manual 6840 at .01). In order to meet this objective the Manual seeks to:

Ensure “that when the BLM engages in the planning process, ***land use plans*** and subsequent implementation-level plans identify appropriate outcomes, strategies, restoration opportunities, use restrictions, and management actions necessary to *conserve and/or recover listed species*, as well as provisions for the conservation of Bureau sensitive species. In particular, such plans should address any approved recovery plans and conservation agreements.” (Manual 6840 at .04D2, emphasis added)

As such, conservation of the sage-grouse must be addressed in the development and implementation of Resource Management Plans [RMPs], the mechanism USFWS indicated was a good tool for conserving sage-grouse. In fact, USFWS states:

“. . . BLM Manual 6840 further requires that RMPs . . . should consider all site-specific methods and procedures needed to bring species and their habitats to the condition under which management under the Bureau sensitive species policies would no longer be necessary (quoting Manual 6840, citation omitted). As a designated sensitive species under BLM Manual 6840, sage-grouse conservation must be addressed in the development and implementation of RMPs on BLM lands . . . if an RMP contains specific direction regarding sage-grouse habitat, conservation, or management, *it represents a regulatory mechanism that has potential to ensure that the species and its habitats are protected . . . during decisionmaking on BLM lands . . .* However, the information provided to us by BLM did not specify what requirements, direction, measures, or guidance has been included in the newly revised RMPs to address threats to sage-grouse and sagebrush habitat. Therefore, we cannot assess their value or rely on them as regulatory mechanisms for the conservation of sage-grouse . . . Although RMPs, AMPs, and the permit renewal process provide an adequate regulatory framework, whether or not these regulatory mechanisms are being implemented in a manner that conserves sage-grouse is unclear” (75 Fed. Reg. 13910 at 13975–77, emphasis added).

What this means is that USFWS was not looking for new regulatory mechanisms. What they needed was evidence the current regulatory mechanisms would be implemented and documentation of the effectiveness of those mechanisms. In other words, all BLM needs to do is monitor and implement its own policy with regards to “special status species” under the Manual and provide data to USFWS in a useable format so that they can show reliable, quantifiable trends relating to the effectiveness of the Manual’s provisions in RMPs to the USFWS.

The Manual’s provisions are designed to be in compliance with the requirements for agencies pursuant the ESA. The ESA is the single-most protective Federal legislation for threatened and endangered species; the Manual uses the requirements of the ESA as a starting point from upon which to build, in order to adequately protect at risk or listed species. The “special status species” provisions in the Manual (which are distinct from the provisions for threatened and endangered species under the Manual) are consistent with those required for listed species under the ESA. As such, the Manual requires the same level of protection for candidate species as it does for species listed as threatened or endangered.<sup>11</sup>

The Manual requires monitoring of “special status species” in order to determine whether management objectives are being met and evaluate whether or not the conservation strategies implemented are effective (Manual 6840 at .2A1). If this provision of the Manual had been or would be implemented, it would provide the quantifiable information required by the USFWS. Additionally, if the monitoring data revealed that the conservation measures were not having the desired effect, BLM could have made appropriate adjustments to the conservation measures pursuant to the Manual.

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<sup>11</sup>The main difference between the protections awarded actual listed species under the ESA, and candidate/special status species under the Manual is procedural. The ESA requires agency consultation with the USFWS or NOAA (Services) when an agency action may affect a listed species. After a consultation is conducted, the Services will then issue biological opinion, which may or may not place further restrictions on the given agency. The Manual does not require consultation with the Services for candidate species.

The Manual also provides for the protection of all ESA listed, candidate, proposed species, and their habitat for a period of 5 years following delisting, which is consistent with provisions under the ESA for species listed as threatened or endangered (Manual 6840 at .2), but not for candidate species. Thus, this provision in Manual 6840 provides *more* protection for candidate species than the ESA.

The WBP determination was issued in March 2010, less than a year and a half after the Manual was revised in 2008. At 75 FR 13910, the USFWS recognized that sage-grouse conservation must be addressed in RMPs under the Manual, and RMPs that address sage-grouse conservation consistent with Manual 6840 would provide an adequate regulatory mechanism (*See Generally* at 13975–77). Accordingly, the Manual already provides the necessary protective measures for the sage-grouse, as recognized by the USFWS, and simply needs to be implemented, followed by appropriate monitoring to document the effectiveness of the conservation measures in the Manual.

The Manual goes beyond what the ESA requires for candidate species, like the sage-grouse, and is a significant formalized conservation effort, if it is implemented properly. Curiously the NTT completely fails to include any discussion of the Manual or even recognize its existence (it is not included in the Literature Cited section of the NTT). The failure of the NTT to use or amend the Manual is particularly perplexing since the Manual is designed to be as protective, if not more, protective as the ESA. Instead, the BLM mischaracterized what the USFWS stated in its WBP determination and set aside adequate existing regulatory and conservation mechanisms pursuant the Manual in favor of the NTT, without providing a reasonable explanation for doing so, and may in fact be arbitrary and capricious. The Manual can be reviewed in its entirety in Appendix B.

#### *2) 2004 National Sage-Grouse Habitat Conservation Strategy*

In addition to the Manual, in November 2004 the BLM issued *The National Sage-Grouse Habitat Conservation Strategy: Guidance for Addressing Sagebrush Habitat Conservation in BLM Land Use Plans* (Guidance). Pursuant to the Guidance, each State Director was to “develop a process and schedule to update deficient land use plans to adequately address sage-grouse and sagebrush conservation needs,” by April 2005 (Guidance at 2). The Guidance provides land managers with the steps to incorporate “sagebrush considerations” into the preparation of land use plans and National Environmental Policy Act [NEPA] analysis. Section 4 of the Guidance explicitly states “that each alternative [in the NEPA analyses] contain[s] considerations for sagebrush habitat conservation by (1) developing one or more goals related to sagebrush habitat with emphasis on sage-grouse habitat that will apply to *all* alternatives . . .” (Guidance at 5, emphasis added). The Guidance also provides for the development of goals and objectives intended for the protection/maintenance, restoration and rehabilitation of sagebrush habitat. The Guidance also suggests that when developing considerations, i.e. conservation measures, that the PECE is taken into account, which would ensure that the conservation efforts stipulated in the land use plan’s would be adequately considered during the USFWS ESA-listing process. The Guidance may be reviewed in its entirety in Appendix C.

The Guidance is not referenced in the WBP determination, and it is unclear whether the Guidance was even implemented. What is clear is that the “deficient” land use plans were to be revised by April 2005 (Guidance at 2) and were to incorporate the provisions of the Guidance document and Manual 6840.<sup>12</sup> If this were implemented as intended, then it is difficult to conceive a reasonable manager would not inform USFWS of its existence during the listing evaluation process for the sage-grouse or in conjunction with the data provided to USFWS for listing decisions. However, this does not appear to have occurred, given the lack of reference in the WBP determination. Moreover, if this did not occur, it might be considered agency action that was “unreasonably delayed” and the BLM should be compelled to use the policy and regulatory tools they already have available to them, as opposed to using scientifically questionable conservation measures like those in the NTT.

#### *b. PECE Considerations*

The PECE is a policy designed to provide guidance to the USFWS and National Oceanic and Atmospheric Administration Fisheries (Services) when making listing decisions under the ESA. Section 4(b)(1)(A) of the ESA requires the Service to: (1) consider various threats affecting a species; and (2) consider any formalized conservation efforts, even those efforts that are not specific to a species but are still

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<sup>12</sup>Manual 6840 was revised in 2008; however there was an earlier version in existence in 2004–05.

beneficial to the species, when making listing decisions. The intent of the PECE policy is to provide consistency in the methods used to evaluate whether formalized conservation efforts identified in a conservation agreement, conservation plan, *management plan, or similar document* that have not yet been implemented, or have yet to show effectiveness, can be considered in making a listing determination. It can also be used to provide guidance to other Federal agencies, States and local governments, tribal governments and, private entities in developing conservation plans and/or agreements for the protection of an at risk species prior to ESA-listing (68 Fed. Reg. 15100, Mar.28, 2003).

Under the PECE, the criteria used to determine whether formalized conservation efforts that have *yet* to be implemented or to show effectiveness contribute to making listing a species as threatened or endangered unnecessary, the Services must find that there is: (1) certainty that the conservation efforts will be implemented; and (2) certainty that the efforts will be effective. In addition to the two main criteria, the policy provides specific factors used to review a specific conservation effort. In evaluating whether a specific effort will be *implemented* the underlying factors considered include whether there is sufficient funding or other resources available to carry out the effort, and do the parties have the authority to implement it.<sup>13</sup> In evaluating whether a specific conservation effort will be *effective*, the factors considered include whether there is a schedule for completing the effort, does the effort establish specific conservation objectives, and are there performance measures established to monitor success (68 Fed. Reg. 15101).<sup>14</sup>

The main tenet of PECE is the certainty that a conservation measure will be implemented and effective. The NTT peer reviewers expressed concern that many of the stipulations in the NTT will not in fact withstand this level of scrutiny. One reviewer states, “. . . [this] seems like very weak guidance that is a long way from any instruction that would lead to these actions” (NTT Peer Review Comments at 7).<sup>15</sup> Another reviewer questions the use of plant measurements to quantify range-land health due to the high level of error involved in the methodology, which goes back to the reviewers concern relating to scale and threshold values. Yet another reviewer comments on the proposed land exchange measures and questions “how achievable” it would actually be given the reality of local mentalities toward property and mineral rights. One reviewer states:

“All activity plans should address PECE considerations . . . Given the budget situation for the foreseeable future, plan projections of a rosy success are often nothing more than happy bullroar . . . ” (NTT Peer Review Comments at 3).

Consideration of budget is particularly important to Federal agencies since it is difficult to guarantee the funds to implement the conservation measures will be approved for the long-term. BLM has made unrealistic assumptions that the conservation measures articulated in the NTT will be fully funded by Congress for the foreseeable future, and disregards the reality of obtaining the necessary funds to implement the NTT conservation measures. If the conservation measures in the NTT are not effective because they were applied improperly due to disregard of scale, or they fail to ensure for adequate funding, especially with respect to land exchanges and fire management, then it is likely that the NTT’s conservation measures will not survive PECE analysis during the 12-month listing process for the sage-grouse beginning in September 2014.

Conversely, the provisions of the Manual are designed to be in compliance with the ESA, and to conserve species so that listing under the ESA is no longer necessary. As such, RMPs that include the conservation measures pursuant the Manual and the 2004 Guidance which provide for: (1) the proper design and implementation of the conservation measures; (2) effective monitoring to determine whether the conservation measures are having the desired on-the-ground effect; and (3) require adaptive management to adjust the conservation measures in response to the monitoring data could have and should be subject to PECE. A reasonable response by BLM to the WBP determination would have been to simply implement Manual 6840 and the 2004 Guidance and then provide USFWS with monitoring data in a useable format to show effectiveness. Instead BLM’s response with the NTT appears to be completely absent of rationale between the facts found in the WBP determination

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<sup>13</sup> Other underlying factors are also considered during the PECE review process for whether or not a conservation effort will be implemented; however only a few are discussed in this paper.

<sup>14</sup> Other underlying factors are also considered during the PECE review process for whether or not a conservation effort is likely to be effective; however only a few are discussed in this paper.

<sup>15</sup> The reviewer was commenting on the stipulation regarding the removal, burial, or modification of existing power lines.

and the choice made to commission the NTT, and instead creates an entirely new regulatory tool, which raises the question of whether the BLM acted arbitrarily and capriciously.

#### *1) Arbitrary and Capricious Standard of Review*

Under the Administrative Procedure Act (5 U.S.C. § 706(2)(A))<sup>16</sup> the court is authorized to “set aside agency action . . . found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” Under this standard of review “the agency . . . must articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made” (*Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43, 103 S.Ct. 2856, 2866, 77 L.Ed.2d 443 (1983)).<sup>17</sup> In reviewing the agency explanation, the court must “consider whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment.” (*Id.*).<sup>18</sup> BLM’s response to the WBP determination with the NTT appears to be completely absent of rationale between the facts found in the WBP determination and the choice made to commission the NTT, and thus raises the question of whether BLM acted arbitrarily and capriciously. Moreover, the provisions in the NTT lead to a species-centric policy that assumes conservation of sage-grouse is the highest and best use of the land which directly violates FLPMA’s multiple-use mandate (43 U.S.C. § 1701(a)(7)). BLM should be compelled to provide a reasonable explanation for ignoring Manual 6840 and the 2004 Guidance and replacing them with the NTT in light of USFWS’ findings regarding Manual 6840 in the WBP determination.

Also under the arbitrary and capricious standard of review, if an agency completely fails to consider an important aspect of a problem, like the fact that USFWS found that Manual 6840 could provide adequate conservation measures *if* implemented properly through RMP’s, the court may find that the agency acted arbitrarily and capriciously (*Motor Vehicle Mfrs.*). The NTT does not use Manual 6840 as a foundation from which to build upon. In fact, it never even references Manual 6840 or explains the need for an entirely new regulatory approach. As such, it inappropriately discards an existing agency policy without ever justifying the radical change advanced in the NTT.

#### *c. NEPA Considerations*

NEPA was enacted in 1969 and creates a procedural obligation upon Federal agencies to consider the environmental impacts likely to occur as a result of major Federal agency action, significantly affecting the quality of the human environment (42 U.S.C.A. §§ 4321–4070a). NEPA requires that agencies document their analysis and findings in an Environmental Impact Statement [EIS]. An EIS must address the environmental impacts of the proposed action, unavoidable adverse affects, secondary and cumulative impacts, alternatives to the proposed action, and mitigation designed to minimize the adverse impacts of the proposed action.

The “alternatives” portion of the EIS has long been considered the “heart” of the NEPA process and requires an agency to rigorously explore and *objectively* evaluate all *reasonable* alternatives so that decisionmakers and the public are fully informed (40 CFR § 1502.14(a)).<sup>19</sup> Substantial case law exists regarding the range of alternatives that need to be included in an EIS. For instance in *Natural Resource Defense Council v. Morton*, 458 F. 2d 827 (D.C. Cir. 1972) the court found that an agency must look at reasonable alternatives sufficient to allow for a reasoned decision, and it is not appropriate to disregard an alternative merely because it does not offer a complete solution to a broad problem. In *Dubois v. USDA*, 102 F. 3d 1273 (1st Cir. 1997) the court held that the Forest Service acted arbitrarily and capriciously when its FEIS did not sufficiently explore all reasonable alternatives, and that an “agency has duty to study all alternatives that appear reasonable and appropriate for study . . . , as well as significant alternatives suggested by other agencies or public during the comment period.”<sup>20</sup> Further, in *Resources Ltd. v. Robert-*

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<sup>16</sup> Under the APA agency action is only judicially reviewable if there is a question of law and not limited to questions of fact. So there needs to be a “substantive legal standard” set out in a statute like NEPA or FLPMA in order for an arbitrary and capricious standard of review to be upheld by the court.

<sup>17</sup> Citing *Burlington Truck Lines v. United States*, 371 U.S. 156, 168, 83 S.Ct. 239, 245–246, 9 L.Ed.2d 207 (1962).

<sup>18</sup> Citing *Bowman Transp. Inc. v. Arkansas-Best Freight System*, 419 U.S., at 285, 95 S.Ct., at 442; *Citizens to Preserve Overton Park v. Volpe*, 401 U.S., at 416, 91 S.Ct., at 823 (1971).

<sup>19</sup> See also § 1502.14(b), (d)) “Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.” (“Include the no action alternative.”)

<sup>20</sup> Quoting *Roosevelt Campobello Int’l Park Comm’n v. USEPA*, 684 F. 2d. 1041, 1047 (1st Cir. 1982).

*son*, 35 F.3d 1300, 1307 (9th Cir. 1993) the court held “The existence of a viable but unexamined alternative renders an environmental impact statement inadequate.”<sup>21</sup> To that end, failing to include full implementation of Manual 6840 and the 2004 Guidance as an alternative in the Draft EIS documents is arbitrary and capricious, and the Draft EIS documents should not be published for public review until full analysis of this alternative is included.

In addition, the principle of informed decisionmaking is the primary purpose of NEPA, and is intended to be used as a tool during the planning and decisionmaking process. As such, an EIS should not be used to justify decisions that have already been made and “[a]gencies shall not commit resources prejudicing selection of alternatives before making a final decision” (40 CFR §§ 1502.2(f), emphasis added).<sup>22</sup> Nevertheless, the BLM has already decided to incorporate the NTT conservation measures into 79 of its RMP’s prior to issuance of the FEIS, as Assistant Director Edwin Roberson indicated in his declaration in the U.S. District Court of Idaho (*Western Watershed Project v. Salazar*, No. 4:08-CV-516-BLW, U.S. District Court of Idaho, 2013, *decl.*), and is in direct violation of NEPA.

#### B. TECHNICAL ERRORS

In addition to the concerns and issues articulated by the peer reviewers, substantial technical errors are present throughout the NTT, in the form of misleading use of citations and use of citations that are not verifiable because they are not provided in the “Literature Cited” section. If the NTT’s claims cannot be scientifically verified, it cannot be considered the “Best Available Science.”

##### 1. Source Mischaracterization

The work of one researcher, J.W. Connelly, is cited 12 times in the NTT; however, 25 percent of the time Connelly was referenced there was not a corresponding source available to review. This also is true for B.L. Walker who is cited 11 times, and 45 percent of the time there was not a corresponding source to review.<sup>23</sup> Together, these researchers work was improperly used 34 percent of the time. Whether this is a result of poor editing or intentional misuse of authority, it does not change the reality that it limits the ability of outside reviewers or the public to verify the claims presented, which is critical to the review process, and which reduces the NTT’s scientific credibility even further. Oddly, there are articles listed in the “Literature Cited” that are not used within the document itself, again, creating credibility issues for the NTT.

Another example of source mischaracterization is misleading use of authority. In the NTT, the BLM stipulates that a full reclamation bond, which would result in full restoration of priority habitat,<sup>24</sup> be included in the terms and conditions of approved RMP’s that allow for oil and gas leases (NTT at 23). However, the first source cited, Connelly et. al. 2000, does not directly support this conservation measure. Connelly et. al. 2000 instead provides that in breeding habitat *only*, the range-land should be restored to a condition that will provide suitable breeding habitat. Moreover, Connelly et. al. 2000 only recommends this level of restoration for areas where there has been at least 40 percent loss of habitat, it does not necessarily apply range-wide, like the NTT implies. With respect to winter habitat restoration, the discussion in Connelly et. al. 2000 is limited to managing prescribed burns and reseeding techniques, and does not establish the level of restoration required in winter habitat.

The NTT also stipulates that with regard to fuel management, sagebrush canopy should not be reduced to less than 15 percent (NTT at 26). However Connelly et. al 2000, the source cited, does not support this proposition. What Connelly et. al.

<sup>21</sup> Quoting *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519 (9th Cir. 1992). See also, *NRDC v. Callaway*, 524 F.2d 79, 92 (2d Cir. 1975) (citation omitted) “It is absolutely essential to the NEPA process that the decisionmaker be provided with a detailed and careful analysis of the relative environmental merits and demerits of the proposed action and possible alternatives, a requirement that we have characterized as ‘the linchpin of the entire impact statement.’” (emphasis added); *Silva v. Lynn*, 482 F.2d at 1285; *All Indian Pueblo Council v. United States*, 975 F.2d 1437, 1444 (10th Cir. 1992) (holding that a thorough discussion of the alternatives is “imperative”).

<sup>22</sup> See also, 1500.1(b), “NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.” (emphasis added)

<sup>23</sup> Comprehensive, quantifiable review of all the sources used in the NTT was not conducted. These authors are highlighted because of how frequently they were used within the NTT. It is possible that this same type of error is present with other researcher’s works.

<sup>24</sup> The NTT classifies breeding habitat, early brood-rearing habitat, late brood-rearing habitat, and wintering habitat as priority habitat.

2000 does say is that land treatments should not be based on schedules, targets, and quotas (Connelly et. al. 2000 at 77). The 15 percent threshold across the range is not supported, as Connelly et al. distinguish between types of habitat and then provide corresponding sagebrush canopy percentages which vary from 10 percent to 30 percent depending on habitat function and quality.

As previously discussed, the NTT stipulates that in order to maintain or increase sage-grouse populations, priority habitat must be managed so that 70 percent of sage-grouse habitat is “adequate” (NTT at 7). However on page 6, the NTT claims that 50–70 percent of the range must be adequate to persist, and then provides three sources to support its proposition. Two of the three sources were reviewed and do not support this assertion.<sup>25</sup> At best, one study suggests that “preferably” 65 percent is necessary for sage-grouse to persist, but the results of this study give measurements related to range persistence and how that correlates to extirpation and only provides this threshold anecdotally. In essence, if occupied habitat was converted to a crop field, for example, the sage-grouse population closest to the converted area was less likely to persist than populations located in suitable habitat farther away from the crop-field. These results do not indicate that 70 percent or even 65 percent of the habitat must be suitable, only that fringe populations are more likely to be extirpated.<sup>26</sup>

#### C. CONCLUSIONS AND RECOMMENDATIONS

During the peer-review period for the NTT, multiple peer reviewers criticized the applicability of the NTT due to misapplication of the science and omission of existing regulatory programs that could be used to conserve sage-grouse and its habitat. As a result the NTT would not likely withstand scrutiny under PECE.

Additional research shows inadequacies in the science itself. Limited analysis of the science used in creating the NTT, as well as the science used in the WBP determination, has shown that there has been:

- Significant mischaracterization of past research;
- Methodological bias;
- Substantial errors and omissions;
- Lack of independent authorship and peer review; and
- Substantial technical errors.

These issues call into question whether the “Best Available Science” was in fact used to establish the conservation measures in the NTT, and the validity of the NTT as a whole. To that end, flawed science will lead to flawed species-centric policy, like that in the NTT. Manual 6840 is designed to be in compliance with the ESA, and to conserve species so that listing under the ESA is no longer necessary. As such, RMPs that include the conservation measures pursuant the Manual and the 2004 Guidance and which provide for: (1) the proper design and implementation of the conservation measures; (2) effective monitoring to determine whether the conservation measures are having the desired on-the-ground effect; and (3) require adaptive management to adjust the conservation measures in response to the monitoring data is sufficient to preclude listing of the sage-grouse if implemented properly. However, the NTT does not use Manual 6840 as a foundation upon which to build. In fact, it never even references Manual 6840, nor does it explain the need for an entirely new regulatory approach. As such, it inappropriately discards an existing agency policy without ever justifying the radical changes advanced in the NTT, and is thus arbitrary and capricious.

The NEPA process requires an agency to rigorously explore and *objectively* evaluate all *reasonable* alternatives so that decisionmakers and the public are fully informed (40 CFR §§ 1502.14(a), 1502.14(b), (d)). Failing to include full implementation of Manual 6840 and the 2004 Guidance as an alternative in the Draft EIS documents is arbitrary and capricious, the Draft EIS documents should not be published for public review until full analysis of this alternative is included.<sup>27</sup>

NEPA is intended to be used as a tool during the planning and decisionmaking process. As such, an EIS should not be used to justify decisions that have already been made. Therefore, the inclusion of the NTT conservation measures into 79 of

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<sup>25</sup>We were unable to obtain the following source. As such, any conclusions that are drawn in this report relating to this source are subject to change: M.J. Wisdom et.al., *Factors Associated with Extirpation of Sage-grouse*, 2011. Pages 451–472 in S.T. Knick and J.W. Connelly (editors). *Greater Sage-grouse: Ecology and Conservation of a Landscape Species and Its Habitats*. Studies in Avian Biology (Vol. 38). University of California press, Berkeley, California, USA.

<sup>26</sup>See C.L. Aldridge et al., *Range-wide Patterns of Greater Sage-grouse Persistence*. Pages 983–994. *Diversity and Distributions* (Vol. 7). 2008.

<sup>27</sup>See discussion, *supra* page 13.

BLM's RMPs<sup>28</sup> prior to issuance of the FEIS is in direct violation of NEPA (40 CFR §§ 1502.2(f), 1500.1(b)) and is arbitrary and capricious (5 U.S.C. § 706(2)(A)).

The policy and technical flaws in the NTT are considerable and must be addressed before it is fully implemented as it could result in ecologically devastating consequences, and conflicts with FLPMA's multiple use mandate. Consideration of its ability to withstand PECE scrutiny is especially important because USFWS has already indicated that Manual 6840 is an adequate conservation effort if implemented through RMP's. Therefore, the BLM must consider fully implementing Manual 6840 and the 2004 guidance into its RMPs that contain sagebrush ecosystems. The BLM should also provide a reasonable explanation for replacing Manual 6840 and the 2004 Guidance with the NTT in light of USFWS' findings about the Manual in the WBP determination.

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### Conservation Measures/Proposed Planning Decisions

#### INDEPENDENT REVIEW OF CONSERVATION MEASURES

REVIEWER COMMENTS—DECEMBER 18, 2012

I) Introductory comments by reviewers

a) **R1**—First of all, putting together range-wide recommendations for sage-grouse conservation measures is an unenviable and difficult task fraught with ecological complexities, strong and diverse opinions, and judicial and political realities.

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<sup>28</sup>See *Western Watershed Project v. Salazar*, No. 4:08-CV-516-BLW, U.S. District Court of Idaho, 2013, decl.

To that end my hat is off to those in the spotlight, and I wish you the best going forward. That said, the impact of this document will be substantial and long-lasting; realistically it could be the standard that governs most land management activities on much of the public land in 11 Western States. With that in mind I have done my best to critically evaluate the utility of the current draft and provide constructive comments for its improvement.

- b) **R2**—I have reviewed the “Conservation Measures/Proposed Planning Decisions” document. It is easily the most far-reaching sage grouse conservation strategy that BLM has ever considered, and they should be commended for its development. There are areas where I believe the strategy can be strengthened, and/or blow back minimized which will make the strategies more effective.
- c) **R3**—I will preface my comments by saying that I am not entirely sure about the intent or expected outcomes associated with the document, and that I focused on the Range Management, Fire and Fuels Management, and Habitat Restoration sections. The letter from Ken Mayer provided a clue as to the intent (“. . . to help BLM develop a set of conservation options that BLM field managers will apply in the resulting Instruction Memorandum (IM)”). If the goal here is to outline conservation options for sage-grouse, then the document seems to fall short in my view. The shortcomings I see fall into several categories:
  - 1) There is no introduction as to the intent of the document, it reads as a laundry list of items. There is no discussion of the seasonal requirements of sage-grouse to provide managers a context for their actions. There are limited references to the state-level sage-grouse plans. A good deal of effort went into these plans and they contain valuable information that should be incorporated into the planning process.
  - 2) There seems to be no focus on identifying the limiting habitats as a first step. How can managers be expected to prioritize their efforts if there is no analysis of which habitats are most limiting?
  - 3) If we are to maintain sage-grouse habitat it will be critical to identify and understand the risks to each particular habitat type. There seems to be limited discussion of risk analysis in the sections [ reviewed].
  - 4) If the document is to be applied across the sage-grouse range it does not make sense to use specific numbers (15 percent sagebrush cover or 12 inches of precipitation) on plant communities that vary tremendously over even small distances. Use concepts that make ecological sense (site potential or risk factor), rather than trying to simplify our complex landscapes.
  - 5) It seems that everyone familiar with the subject recognizes that sage-grouse require large intact landscapes, yet there is no mention of a landscape perspective or spatial scale in the document. For example, a series of 5 acre projects may sound good on paper, but may do nothing to help the bird.
- d) **R4**—No Comments
- e) **R5**—No Comments
- f) **R6**—Opening paragraph. I don't really see any habitat and population objectives.

## 2) Comments on Structure

- a) **R1**—They develop a list of conservation strategies that apply to priority habitat and don't define it? The definition they gave could be changed to “to be determined.” The devil is completely in that detail. Even using core area is inadequate, in that many “cores” are based only on leks, and may not include other important seasonal habitat. I understand the need and desire to have a flexible definition to accommodate variation across the range, but far better to have a base definition to which States can append other criteria as necessary, than to defer the definition.
- b) **R2**—The document states at the beginning that the “following conservation measures are designed to achieve population and habitat objectives stated in this report”, yet no population or habitat objectives were stated. I assume they are in another part of the document I did not see. The document is an odd mix of scientific citations and policy decisions, with no real tie between the two. I expected a science document that reviewed the literature, laid out what is known about program area impacts to sage grouse, and where the uncertain-

ties lie. The science review would lead to a range of numbers and alternative approaches, which would then segue into a policy document that described the approach chosen. The science team would develop the science document, the program managers the policy outcome emanating from it. This seems a strange blend of policy loosely backed by citations, with no analysis of the science. Because there is no iteration of the rational scientific basis for the very prescriptive strategies, I would anticipate strong blowback by Industry and by Environmental groups, the former finding it over-reaching and the latter inadequate.

- c) **R3—No Comments**
- d) **R4**—The organization could be more consistent. Various sections address high-priority areas and general areas, some don't include both (i.e., only address high-priority), and some points are repeated over in several activities. There should be a section containing provisions common to all activities for both high-priority and general areas (such as for reclamation/restoration, roads, other infrastructure). Then the separate activities can have activity-specific provisions.
  - i) Are the habitat references to occupied habitat, unoccupied habitat, both? One of my concerns is that actions may be taken in presently unoccupied habitat that can compromise its value for sage-grouse. That needs to be explicitly addressed. Unoccupied habitat can still be a high-priority area.
  - ii) There is no activity section for Fish/Wildlife/Special Status Plants actions as they may otherwise affect sage-grouse (e.g., rehab projects for species other than sage-grouse). Also, such a section (or Range) should contain provisions for identifying seed reserves to be managed for seed collection.
  - iii) There should be a Planning-specific section/provision/umbrella for all of these sections. One provision would be that "No planning effort will be initiated until a complete HAF evaluation has been completed for the entire planning area under consideration and adjacent sage-grouse habitats that may be impacted by activities in the planning area under consideration." Further, All BLM land use plans should contain a section about relevant or associated LWG plans and their applicability to BLM actions and provisions in the area addressed by the LUP.
  - iv) Soil productivity needs to be explicitly addresses when considering alternatives for activity plans and plans of operation. Burying of lines, constructing roads, installing livestock facilities, etc. All seek to exploit the deepest, most productive soils which can have the most detriment to habitat productivity.
  - v) All activity plans should explicitly address PECE considerations, i.e., the certainty of implementation and certainty of effectiveness. Given the budget situation for the foreseeable future, plan projections of rosy success are often nothing more than happy bullroar. I've seen it too many times before.
- e) **R5—No Comments**
- f) **R6—No Comments**

### 3) General Comments

#### i) **R1—Space and time**

- (1) A central premise in ecology is the notion that ecological processes unfold in both space and time. Lack of consideration of space, and particularly (in this document) time is a critical mistake that, to me, renders this document problematic, if not dangerous. Let's consider both dimensions and how they might influence the current document.

As written, there is essentially no consideration of the temporal dynamics of plant communities that provide sage-grouse habitat. For example, let's consider a mountain big sagebrush community with high abundance of perennial grasses and shrubs. Furthermore, let's say that there are numerous small (<1-m tall) western juniper plants present. If we forget about time, then we might look at this community and say that it would provide great habitat for specific life history stages of sage-grouse and thus it should be "left alone" from a management standpoint. However, given what we know about juniper encroachment, if we leave it alone for long enough (perhaps 70 to 90 years) it will eventually transition to juniper dominance and the shrub (and perhaps perennial grass) component will be lost. At that point it is no longer sage-grouse habitat. An alternative would be to burn the plant community while it is still in the early stages of juniper encroachment. This would remove the shrub component and dramatically reduce quality of or eliminate (depending on burn size) sage-grouse habitat at the site. However, grouse habitat would improve as sagebrush abundance recovered over time; based on available lit-

erature this process might take two decades. So, at the end of 20 years, we could either have a recovered sage-grouse habitat without juniper (i.e., with fire) or be well on our way to losing this site as sage-grouse habitat (i.e., juniper dominance in the absence of fire or other management action). The point of all this is that in ecological systems that operate in both space and time, we cannot categorize either disturbance or management actions in the absence of considering the temporal component. Overlooking the temporal aspects of ecological disturbances such as fire promotes a species-centric focus in which disturbance effects are characterized using the intellectually pedestrian notions of “good” or “bad” without consideration of the specific temporal context within which these disturbances unfold. This, in turn, reinforces a focus on sage-grouse, rather than a focus on the ecology of the ecosystems to which the integrity of sage-grouse habitat is subservient.

The current document does a better job with space (as compared to time) but I think the document needs to more explicitly consider the spatial context within which sage-grouse management is set. You need to better incorporate spatial variability in site potential via the use of ecological site descriptions and realize the interrelationships between ESD's and the effects of management actions. For example, under “Emergency Stabilization and Rehabilitation”, you state, in part: “. . . Re-establishment of sagebrush overstories shall be the highest priority for rehabilitation efforts based onsite potential.” This may be fine for high elevation sites, but, I strongly disagree for low-elevation sites where annual grasses are biggest threat to ecological integrity. The “highest priority” on these sites should be maintaining ecological integrity of the site by having something other than annual grasses present. The highest probability treatment in this case is to seed perennial grass species, which are, at present, the best defense (once established) against annual grass invasion. Shrubs are harder to establish on these sites and restoration of that component should take place after or in conjunction with securing the ecological integrity of the site. Thus, the appropriate management actions, and in this case the order of appropriate management actions, is strongly tied to ecological site. This concept needs to be specifically addressed to avoid on-the-ground problems for BLM. I would recommend either 1) sufficiently vague language to allow for flexibility at more local scales, 2) explicitly recognizing the need for reliance on ESDs, or, ideally, 3) both.

The document also misses the mark when it comes to larger scale variation associated with inter and intraregional variation in plant community ecology. This is a serious omission. For example, the present-day disturbance ecology of relatively low elevation big sagebrush communities is in stark contrast to that of higher elevation big sagebrush communities. Using southeast Oregon as an example, too much fire has been associated with proliferation and spread of annual grasses in lower elevation plant communities; arguably the single greatest threat to sage-grouse habitat at lower elevations. At higher elevations, too little fire is associated with encroachment of native conifers (namely western juniper) into sagebrush/bunchgrass habitats to the extent that conifer-associated loss of sagebrush habitat is now the greatest threat (as defined by the state-level sage-grouse working group) to sage-grouse habitat in the State. If this document is to be effective in defining conservation measures on a range-wide basis, it must take into account the considerable large-scale variation in plant community ecology present within the range of sage-grouse. Otherwise, we are faced with species-centric generalizations of the effects of ecological processes that may not represent ecological reality.

## ii) Native vs. introduced grasses

- (1) Exotic annual grasses are a serious and ongoing threat to low elevation sage-grouse habitat throughout the range of the species. At present, our ability deal with annual grasses at large spatial scales is very limited. The best management option currently available involves establishment of perennial grasses, which inevitably brings up the discussion of native vs. introduced species. Re-seeding with either group can be difficult at low elevations. However, the bulk of the peer-review literature clearly indicates that introduced perennial grasses (namely crested wheatgrass and its affiliates) are the highest probability choice. My point is that maintaining the ecological integrity of these sites through establishment of perennial vegetation should be the first priority, and the best shot at making that happen at low elevations is with introduced species. I say this in full recognition of the fact that subsequent conversion of these introduced communities back

to native has proven incredibly difficult and with present technology is simply not feasible at large spatial scales.

iii) **Climate change**

(1) I would suggest that language directing managers to consider future climate change in determining seeded species be taken out. Present knowledge of climate change is not at the stage (i.e. accurate enough) where we can predict future climate to the extent that we are designing seed mixes based on those predictions and we have enough problems to worry about with restoration success in the present climate.

iv) **Other thoughts**

(1) What happens when potential of the ecological site is at odds with stated sage-grouse habitat requirements? This could be clarified by specifically incorporating Ecological Site Descriptions and not using cutoff values such as 15 percent sagebrush canopy cover.

(2) The notion that grazing privileges in sage-grouse areas should be retired when base property is transferred or a current operator is willing to retire such privileges assumes grazing is automatically a problem and can't be used as a tool for habitat management. It also assumes that grouse are the highest and best use of the land . . . this HAS to be addressed before these guidelines become policy or serious problems will arise. What about FLPMA . . . where does it fit into the picture?

(3) The notion that no treatments will be allowed in known winter range seems a bit draconian. What if winter habitat is also breeding habitat? Dave Dahlgren's research has demonstrated how small patch-scale sagebrush reduction treatments can be used to create beta diversity that improves grouse habitat while retaining sagebrush dominance at large scales. Again, the issue of spatial scale.

(4) Document suggests not using fire to treat sagebrush in less than 12-inch precipitation zones. I generally agree with this, but at the same time I have a problem with making these broad generalizations about ecosystems, the properties of which vary strongly across sites and over time.

b) **R2**—Almost all of the emphasis is on preventing additional habitat loss or degradation on BLM land, with relatively little effort spent on strategies to improve existing habitat. BLM has huge opportunities to remove fences, close roads, control weeds, eliminate crested wheat grass, develop springs, etc., to make degraded habitats better, and this should be emphasized as much as not making things worse.

i) The document suffers from a I-size fits all approach that lacks context. Lumping all sage grouse seasonal habitats in all locations across the range regardless of population size or relative importance of the population into either "priority sage grouse habitats" or "general sage grouse habitats" strikes me as tremendously over simplistic. When combined with very prescriptive direction, it may lead to strong opposition, which may lead to weak application of the IM.

ii) The document does not define either "priority" or "general" sage grouse habitat. Without a definition the conservation measures have no meaning. I asked for a definition, and what I was given was this:

(a) *Preliminary Priority Habitat* [PPH] is the area identified as having the highest conservation value relative to maintaining sustainable Greater Sage-Grouse populations. The PPH are being identified by State wildlife agencies and the BLM (these may also be referred to as "core areas" in some States).

(b) *Preliminary General Habitat* [PGH] is occupied habitat outside of PPH as identified by State wildlife agencies and/or the BLM.

iii) The definition for priority habitat is circular, in that "highest conservation value to maintain sustainable Greater sage grouse populations" is also not defined. There are as many definitions for core areas as there are States, most at present are lek-based and therefore don't consider brood rearing or winter habitats unless they occur within whatever buffer is used. The definition for general habitat is occupied habitat, so in that case why not just use occupied habitat? I would expand that however to include "unoccupied but potentially suitable habitat."

iv) Priority habitat must be defined before this document goes out for wider review, rather than kicking that can down the road. The elements that must

be included would be lek/nesting habitat (rather than using arbitrary buffers may want to include proportions of nesting hens included and let the buffer vary with habitat quality and local characteristics), late brood-rearing habitats, and winter concentration areas. It would be far preferable to have a base definition that is amended locally, than to have no definition and allow each State and potentially Field Office to develop their own.

- v) There is no performance aspect or adaptive management component. The document begins by stating that the following conservation measures are designed to achieve population and habitat objectives stated in this report, yet that is the only time population and habitat objectives are mentioned. What happens if the conservation measures don't achieve population and habitat objectives? Some type of rigorous adaptive management must be the final conservation strategy, where the effectiveness of these measures, and the degree to which sage grouse habitat and populations are conserved by these measures (in the face of other threats), are constantly evaluated and reassessed. There is a sentence on monitoring that says a monitoring strategy for sage-grouse and sagebrush will be developed for adaptive management purposes, but this ignores the critical feedback aspect of adaptive management, where data collections feed back to change management strategies where necessary.

- c) **R3**—No Comments.
- d) **R4**—No Comments.
- e) **R5**—No Comments.

#### **Travel and Transportation**

- 1) Priority sage-grouse habitat areas

- a) **R1**—No Comments.
- b) **R2**—This is a good example where opportunities to make things better as opposed to not making them worse exist. The document talks about completing activity level plans within 5 years and “where appropriate” designating routes within priority habitats as administrative access only. Routes that are adjacent (within  $\frac{1}{4}$  to  $\frac{1}{2}$  mile?) to leks should be moved away from leks or closed, and seasonal closures should be considered within lek areas similar to what Gunnison County has done in Colorado. Travel management plans should be reviewed within some reasonable timeframe to consider de-designating and closing routes near leks or brood areas.

The ROW exclusion in priority habitats is good, but the exception is troubling. Simply excusing new road construction within priority habitats by requiring off-site mitigation if it causes surface disturbance to exceed 2.5 percent is not adequately protective. I don't know where 2.5 percent comes from, I percent surface disturbance in core areas is the number I've seen from Naugle's work. It also matters greatly whether that road is  $\frac{1}{4}$  mile or 3 miles from a lek (or merely crosses nesting habitat), and whether that lek has 5 males or 300; one-size fits all is not the right model here. The purpose of the ROW matters as well; oil and gas rigs vs. mountain bikes. You can't mitigate loss of a 100 bird lek if frequent traffic caused abandonment.

“Take advantage of opportunities” to remove, bury or modify existing power lines seems to be very weak guidance that is a long way from any instruction that would lead to these actions. This should be recast as actions that field offices must take.

- c) **R3**—No Comments.
- d) **R4**—I don't see anything about seasonal closures in this section. At the end of the first point is the phrase “at a minimum.” What else would qualify?

With respect to the 2.5 percent surface disturbance, this should be changed to something like “if the total infrastructure footprint to sage-grouse habitat would exceed 2.5 percent, then off-site mitigation at least equal to the total footprint will be required.” Although a powerline, road, etc., may only physically impact a small area that would not cause an area to exceed 2.5 percent, the effective habitat impacts (footprint) could affect much more than the 2.5 percent physical disturbance area.

- e) **R5**—No Comments.
- f) **R6**—No Comments.

### **Recreation**

- 1) Special Recreation Permits
  - a) **No Comments.**
- 2) Recreational Management Areas
  - a) **No Comments.**

### **Lands/Realty Rights of Way**

- 1) General Comments on Lands/Realty
  - a) **R4**—re: “entire footprint”—is this only the physical footprint or the effective habitat footprint? Same point to be made regarding the phrase “existing disturbance.” Second point, re: “disturbance exceeds 2.5 percent” See previous comment (earlier email) regarding physical versus habitat disturbance. Third point (evaluate and take advantage of . . . ) This should apply generally, not just to priority areas. Insert “and proposed” between “existing power” so it reads “existing and proposed power lines.” Under “Planning Direction Note,” to the last sentence, after “during the planning process” add “. . . resulting in it becoming an exclusion area not subject to the exceptions described above.”
  - b) **R5**—Why address only those disturbances that are larger than 2.5 percent of the area? All disturbances should be addressed. The inability to address small areas usually leads to bigger problems (i.e. weed infestations).  
  
Removing, burying, or altering power lines will most likely add disturbances to the plant community that will be very difficult to rehabilitate in many habitat types and thus decrease suitable habitat and increase weed infestations in sage grouse habitats

### **Land Tenure Adjustment**

- 2) Priority sage-grouse habitat areas and general habitat areas
  - a) **R1**—No Comments.
  - b) **R2**—Retaining priority habitat in public ownership seems to be a good strategy both as a conservation measure to protect against conversion and to shift the burden of management of a potentially listed species to the government. I do think the language about acquisition of privately held habitat is a bit open ended, and would suggest modifying that to reflect acquisition of in-holdings or key parcels that are contiguous to public ground so as not to appear like a Federal land grab. I wouldn’t also allow for the sale of BLM land to private conservation organizations (land trusts) or State agencies as long as there are conservation easements or other protections in place to ensure sage grouse habitat is preserved in perpetuity. There are situations where taking land out of multiple use mandates may well be in the best interest of sage grouse.
  - c) **R3**—No Comments.
  - d) **R4**—Land Tenure Adjustment: this section only addresses priority sage-grouse habitat areas. It should also address general sage-grouse habitat areas. Also the point made in the draft is only about ownership patterns. The priority should be placed on acquiring/managing/consolidating sage-grouse habitat. That’s probably intended, but as worded it is only inferred, not explicitly stated.
  - e) **R5**—Land exchange part appears to me to be very difficult. Private land owners own much of the water on arid western lands. In my experience they hold those properties in high regard and do not want to give those holdings up, especially to the government.

Again, the mineral rights are more sacred than the riparian areas, mineral rights are seldom sold, but rather quick deeded from generation to generation. Working in Nevada I commonly hear “you never sale mineral rights”, so with this mentality how achievable would this be.

- f) **R6**—No Comments.

### **Proposed Land Withdrawals**

- 3) Priority sage-grouse habitat areas
  - a) **R2**—“Lands within priority sage-grouse habitat areas will be proposed for mineral withdrawal.” I understand and support what withdraw means in this context, but don’t understand what proposed means? What happens after the proposal, and what guidance is provided relative to appeals etc?
  - b) **R4**—The example given (military range buffer area) seems like an isolated situation, not something more likely to be encountered across sage-grouse range. Can a better example be provided? Is the buffer example one that is already

under active consideration? Fantasizing (again, think the present budget situation), what if bases are closed and habitat reverts to the BLM? How would restoration be conducted and who would pay?

### **Range Management**

#### 1) General

a) **R1**—No Comments.

b) **R2**—These strategies seem pretty tepid and largely reflect commitments that BLM has already made. The statement “Consider at least one alternative in the NEPA document required for permit renewal, if an effective deferred system that meets sage-grouse habitat requirements are not already in place” doesn’t seem to make sense as written since there is always more than one alternative considered. I believe it is supposed to say “consider at least one deferred grazing alternative” as opposed to consider at least one alternative. Non-use for some period should also be explicitly mentioned as a management action that should be considered when sage grouse habitat elements are not met by sites capable of meeting them. While non-use or denial of permit applications may be possible outcomes under “grazing decisions”, neither are listed as one of the five management actions to be considered, all of which assume some level of grazing use.

There is too much emphasis on protecting crested wheat grass seedings (“introduced perennial grass seedings”). Understanding they may concentrate grazing pressure, the reality is there is an opportunity cost associated with the potential sage grouse habitat those stands could be providing and are not, that is ignored here. Sage grouse would be better off if large tracts of crested wheat are converted back to sage grouse/native grass and forb communities, with AUMs reduced if necessary if loss of crested wheat stands reduces forage availability. This is also true of large burns within occupied range, which should be explicitly mentioned as targets for sagebrush re-establishment.

Structural range improvements, including fencing, corrals, livestock handling structures etc., are prohibited within priority habitats unless they conserve, enhance or restore sage grouse habitat. It is impossible to determine whether they conserve, enhance or restore sage grouse habitat or not without some explicit criteria as to when they do and when they don’t that is context and scale relevant. For instance I can’t envision a situation where a fence line that goes through a lek would on balance conserve, enhance or restore sage grouse habitat regardless of offsetting gains from a livestock management perspective. If the fence simply went through winter range and excluded livestock from important brood habitat, I could.

c) **R3**—No Comments.

d) **R4**—Change “or” to “and”. Third point; last sentence. In the last sentence, use of the term “productive” implies that Connelly et al. and Hagen et al. included unproductive recommendations in the publications.

e) **R5**—I have always had a problem with this “Rangeland Health” thing. I understand it to a point, but the reality is that the health is in the eye of the beholder. Is a big sagebrush/bunchgrass habitat with 10 percent sagebrush cover and good perennial grass densities less healthier than 20 percent sagebrush cover and less perennial grasses? Remember, good long-lived perennial grass densities are the best way to suppress cheatgrass fuel loads that is critical in protecting sage grouse habitats. The 20 percent big sagebrush cover may very well be suppressing the much needed long-lived perennial grasses. Also, plant measurements taken by numerous individuals, even with a strict protocol, have high error, so in many cases the data you analyze does not represent on-the-ground situations. You risk not achieving stated goals and objectives due to this disconnect between data collected and on-the-ground realities.

Managing vegetation composition and understanding on-the-ground site potential is very good!

It is very difficult to modify grazing systems in the arid west. With such variations in forage productions the climate does not offer annual predictions, therefore livestock are put out on the range during drought years in the same manner as during rare wet years. Our rangelands simply do not provide the flexibility to accommodate the livestock producer without some kind of financial hardship. Most livestock producers are lacking winter allotments and have to feed or supplement their stock at a high cost, therefore they are chewing at the bit to get their livestock back on the range early and keep them out their as long as possible. One of the best ways to manage livestock is to get the cowboy back on the horse and to focus on the distribution part of the management.

Perhaps using programs that help pay for this labor could be addressed. On three ranch operations that I work with closely, there is an average of 1 cow/200 + acres, yet we have hot spots from improper grazing management because the rancher is now a farmer/mechanic and trying to produce winter forage for his stock. Placing the cowboy back on the horse and manually moving their stock will be much more beneficial and less time consuming than sitting down at the table and trying to change their numbers and seasons of use. You want this effort to be achievable then be careful when placing the livestock industry on the defensive, the only ones that make out are the lawyers. I once had a livestock operator in Colorado tell me that it was "hard to swallow someone coming in and decreasing his equity in such a closed minded fashion, how would they like it if I came in and took out a bedroom and bathroom out of their home". He ended up selling his property to a developer. If this mentality is consistent out there, wildlife in general could pay a price.

e) **R6**—No Comments.

## **2) Implementing Management Actions after Land Health and Habitat Evaluations**

a) **R1**—No Comments.

b) **R2**—See comments above.

c) **R3**—Maybe this makes sense to folks internal to BLM, but I did not really understand the point of this paragraph. This is the only place where ESDs are mentioned and that is probably a mistake. ESDs should probably be the basis for many of the evaluations and actions taken by BLM. That would provide for some consistency across the county.

- *"BLM will manage for vegetation composition and structure consistent with site potential (based on ESDs) to achieve sage-grouse seasonal habitat objectives." This sentence (as modified) seems to cover the topic pretty well.*

- Implement management actions (grazing decisions, AMP/Conservation Plan development, or other agreements) to modify grazing management to meet seasonal sage-grouse habitat requirements. Consider singly or in combination changes in: 1) Season or timing of use, 2) Numbers of livestock, 3) Distribution of livestock use, 4) Intensity of Use, and 5) Type of Livestock (e.g., cattle, sheep, horses, llamas, alpacas and goats). **Reviewer comment** *"Doesn't BLM have a reference document on grazing management? If not it might be worth saying that managers should use the approach outlined in USDA-NRCS National Conservation Practices Guide for prescribed grazing (using grazing to achieve specific vegetation objectives) with a focus on specific sage-grouse habitat needs."*

d) **R4**—Under "Implementing Management Actions after . . . Evaluations", second sentence; insert the phrase "sage-grouse conservation" after "at least one", and change "deferred" to "grazing". It doesn't matter what the new system is if it is effective (recognizing that the deferment period could conceivably be for several years). Change "are" to "is".

e) **R5**—See comments above.

f) **R6**—No comments.

## **3) Riparian Areas and Wet Meadows**

a) **R1**—No Comments.

b) **R2**—See Comments above.

c) **R3**—Analyze springs, seeps and associated pipelines to determine if modifications are necessary to maintain the continuity of the predevelopment riparian area within priority sage-grouse habitats. Make modifications where necessary, considering impacts to other water uses when such considerations are neutral or beneficial to sage-grouse.

**Reviewer Comment:** *Woody plant encroachment is a major threat to riparian systems in the western part of the range (juniper species primarily in OR, ID, and NV), but I imagine there is pine encroachment in higher elevation meadows in other parts of the range as well. These areas are lost as habitat if nothing is done.*

d) **R4**—First point, lead sentence. These areas should be managed *everywhere* for PFC, period. That's a fundamental tenet of land management.

Third point re: water development; wells and stock ponds should be included among the types of developments allowable only when sage-grouse habitat would benefit. Water developments almost always exploiting vegetation on the most highly productive soils to increase or otherwise facilitate livestock grazing. There are also almost always invasive species issues associated with livestock facilities, and the analysis horizon for EAAs and LUPs is generally only 10 years, which is not nearly long enough (my opinion). It's only a matter of time until a new invader arrives or climatic parameters become suitable for invasives establishment in, or expansion from disturbed areas. The impact area(s) for livestock facilities can include areas well away from the immediate facilities, such as underneath stands of trees (e.g., mountain mahogany) when livestock use the trees for shading and hammer the vegetation and soils as a result of prolonged presence. These areas become sources for invasive establishment and spread and it's only a matter of time before they expand by one or more mechanisms into adjacent higher-quality vegetation stands. Lots of examples in the Owyhees, Jarbridge where I have taken photos of such areas where cheatgrass has become well-established and is lying in wait for the right conditions and already fingering out along cowpaths.

e) **R5**—How many of these wet meadows are private? How does this affect the ability to meet these management goals? Here they are discussing building fences, earlier they discussed removing fencing. Is fencing harmful to sage grouse? Again, simply placing a cowboy back on the range will reduce hot season grazing! Building a fence around so many riparian areas will only increase maintenance and repair which may add disturbances to the overall area and in most cases place the livestock producer in a position where they are spending time repairing fence on top of farming/mechanic duties rather than moving and actively managing livestock. Don't these fences just add perches for predators?

Remember, site potential is important as stated earlier, but don't forget the inherent potential of plant species to germinate, sprout and establish in the face of such exotic species such as cheatgrass. The best known method to suppress cheatgrass is through the establishment of long-lived perennial grasses such as bluebunch wheatgrass and crested wheatgrass. In the more arid locations of the Great Basin the return of Wyoming big sagebrush back into these disturbed habitats is more successful following the decrease in wildfire frequencies that can be achieved through seeding of introduced species such as crested wheatgrass. This is important because the open window of seeding following a Wyoming big sagebrush wildfire is that 1<sup>st</sup> fall season following the wildfire event. If the seeding fails because of the choice to seed species with less inherent potential, the window closes and then some more aggressive, costly methodology to rehabilitate the habitat is then needed. This latter approach is of high risk and lower returns; don't fail during this open window! By highly preferring native species that have little or no chance of achieving the stated goals, which leads to further degradation in many circumstances.

Is the Federal Government going to go into the business of managing their own livestock? In the part about retiring grazing permits I have this question: Only about 7 percent of Nevada is considered mountain brush habitat, whereas Wyoming big sagebrush is the major plant community. Where is the fuels management? The removal of livestock will most likely result in increased bunch grasses/fuel loads in the mountain brush habitats. These fuel loads will probably result in increased wildfires in these habitats that will burn critical sagebrush communities. In the Wyoming big sagebrush communities, the perennial bunch grasses are largely gone and cheatgrass is now the dominant herbaceous vegetation. Whether cheatgrass is 1" high or 12" high it will still produce seed and build seed banks. Even though wildfires occur with the presence of livestock, the reduction of such grazing would result in extreme buildups of fuel loads. Again, resulting in further loss of critical shrub communities. The simple removal of livestock will not result in the return of healthy big sagebrush/bunchgrass communities, especially in Wyoming big sagebrush communities. So, how do you plan on managing these fuel loads?

Also, these string meadow systems will have increase in herbaceous grass species and decrease the forb component, how do you manage the meadows to increase the critical forb component without some type of grazing management? Yes horses can achieve that, but they are not managed and therefore many meadow systems will not receive this treatment and the risk of decreasing critical sage grouse habitat needs also increases. This is not effective management.

f) **R6**—No Comments.

#### **4) Treatments to Increase Forage for Livestock/wild ungulates**

- a) **R1**—No Comments.
- b) **R2**—See comments above.
- c) **R3**—For example: Some introduced grass seedings are an integral part of a livestock management plan and reduce grazing use in important sagebrush habitats or serve as a strategic fuels management area.

**Reviewer Comment:** Be careful here—we have had limited success converting crested wheatgrass stands to natives in the Great Basin and if this sort of approach is attempted in the wrong setting there is a risk of conversion to annual invasive grasses and entry into short fire return cycles.

- d) **R4**—No Comments.
- e) **R5**—See Comments above.
- f) **R6**—No Comments.

#### **5) Structural Range Improvements and Livestock Management**

- a) **R1**—No Comments.
- b) **R2**—See comments above.
- c) **R3**—Modify first sentence: Any new structural range improvements and location of supplements (salt or protein blocks) will be designed to conserve, enhance, or restore sage-grouse habitat through an improved grazing management system relative to sage-grouse objectives. (Structural range improvements include but are not limited to: cattleguards, fences, enclosures, corrals or other livestock handling structures; pipelines, troughs, storage tanks [including moveable tanks used in livestock water hauling], windmills, ponds/reservoirs, solar panels and spring developments.)
- d) **R4**—Third point “Evaluate existing structural . . .” Ensure that such evaluations address potential invasives as I discuss above. Monitoring programs should include regular statistical sampling and photo monitoring of invasive islands to document whether or not incremental creeping from the disturbed areas is taking place.
- e) **R5**—See comments above.
- f) **R6**—No Comments.

#### **6) Retirement of Grazing Privileges**

- a) **R1**—No Comments.
- b) **R2**—No Comments.
- c) **R3**—*Seems like the first thing to do is to assess the effects of retiring the grazing.* If the result of no grazing is increased risk of fire, then it might be worth reconsidering.
- d) **R4**—This should also include retirements outside of high-priority areas so that livestock use within high-priority areas can be shifted out of the high-priority areas when desired.
- e) **R5**—No Comments.
- f) **R6**—No Comments.

#### **Wild Horse and Burros Management**

##### I) General Comments.

- a) **R1**—No Comments.
- b) **R2**—Woefully inadequate measures. While managing wild horses and burros to AML levels in priority sage grouse habitats would be a good start, the AML levels themselves must be re-evaluated and in almost all cases lowered to conserve sage grouse habitat.
- c) **R3**—No Comments.
- d) **R4**—No Comments.
- e) **R5**—Pretty short addressing of the horses/burros issue. If you are going to mention fencing, water hole dispersal etc., with livestock then even with a proper management level of horses you need to address hot season use and the degradation of these water holes by horses and burros.
- f) **R6**—On-going section: Prioritize gathers? **not sure what this is** in priority sage-grouse habitat, unless removals are necessary in other areas to prevent catastrophic environmental issues, including herd health impacts.

## Minerals

### **1) General Comments**

a) **R1**—No Comments.

b) **R2**—Closing priority habitats to mineral development and not renewing existing leases in priority habitats is a huge conservation measure, depending of course on the definition of priority habitat that is ultimately settled on. Applying a NSO stipulation within 3.1 miles of a lek, and within winter concentration areas is also a big step. I also support the requirement that Master Development Plans be required in priority habitats, as opposed to individual APDs. In the Master Development Planning process, some consideration should be given to waivers within 3.1 miles of peripheral/small leks, in exchange for maintaining NSO near true “core” lek areas. In other words, leks of a half dozen males that are isolated are less important to sage grouse conservation than core areas where the 3.1 mile buffer may encompass several leks and hundreds of grouse.

The exception to the NSO stipulation when the entire lease area is within 3.1 miles is reasonable considering property rights conveyed with existing leases, but new leases should not be granted on parcel sizes so small as to make this likely. The full 3.1 mile buffer contains almost 20,000 acres, which is likely an unreasonable minimum lease size, but lease minimums of at least 1,000 acres should be instituted so keeping disturbance to within less than 1 percent of the surface within breeding areas can be accomplished.

I do think some additional flexibility is called for. The exceptions to the NSO state that if the entire lease is within 3.1 miles of a lek or a winter concentration area (which will not be uncommon), then the pad must be placed in the “most distal” part of the lease. Depending on topography and other habitat aspects, the most distal portion of the lease may not be the best place to put the pad from a sage grouse perspective, and some exception that is demonstrably beneficial to sage grouse should be allowed.

I think another conservation strategy that should be considered is to not lease Federal mineral under State Wildlife Areas or private ground that is managed for the benefit of sage grouse. In the latter case a conservation easement and sage grouse management plan should be required.

Again I question whether less than or equal to 2.5 percent surface area disturbance with no more than 1 pad per section is adequately protective of sage grouse. Need to ensure that if infill development is allowed under these circumstances it is restricted to existing pads/roads only.

One protection needs additional clarification, namely “a seasonal restriction will be applied that prohibits surface-disturbing activities during the nesting and early brood-rearing season in all priority sage-grouse habitat during this period”. Again, without a definition of priority habitat it is not clear what this means. If priority habitat includes winter range, which it should, then breeding season timing stipulations would not be appropriate there. I would suggest a buffer around leks (0.6 miles?), to which could be added early brood-rearing habitat not contained within that buffer. Seasonal timing stipulations have generally not been effective sage grouse conservation strategies for a variety of reasons, and are particularly vexing to industry given huge directional drilling rigs that are expensive to operate and difficult and expensive to move. If the net effect of timing stipulations is to push drill rigs to private land that may be better habitat, sage grouse are likely to be negatively impacted. Master Management Plans should be developed that allow for exceptions to seasonal timing stipulations when impacts are mitigated by other conservation strategies.

I generally support the BMPs as mandatory conditions of approval, but the process needs to recognize that Industry frequently finds better ways to do things more quickly than BMPs are modified, so any mandatory aspect needs to allow for better approaches to be approved.

Prioritizing offsite mitigation to priority habitat areas, and to the population impacted makes sense, but the whole question of when mitigation is required, to what degree, and even what constitutes mitigation needs a great deal more development. This document is silent on that, which leaves it entirely to field discretion. The currency of mitigation needs to be developed, with credit given for mitigation over and above that required.

Requiring that sage-grouse habitat objectives are incorporated into reclamation planning is good, but evaluation must be outcome based. Applying good practices is not adequate, industry must continue to manage reclaimed sites until sage-grouse habitat is restored to required levels.

c) **R3**—No Comments.

d) **R4**—Best Management Practices; I'd like to see a provision that whenever possible everything, including structures traditionally left above ground, such as well trees, will be buried. In some cases it would be necessary to dig pits to get structures below grade. Cost is seemingly the primary issue, but if it is technologically possible, it should be considered. It would be good somewhere to establish a sizable pilot area where non-traditional practices could be implemented and evaluated. Cam Aldridge and I have talked in the past about facilities being totally buried on the Sheffield military training area in Canada, and it seems to work well, without compromising the military mission or raising havoc with the buried facilities.

e) **R5**—No Comments.

f) **R6**—*Alternative B I don't follow the Alternative A and Alternative B? Is one to be deleted? A is better for the species than is B?*

*What is Appendix A?*

**Reviewer suggests adding:** A seasonal restriction will be applied that prohibits surface-disturbing activities during the lekking, nesting and early brood-rearing season in all priority sage-grouse habitat during this period.

- Require unitization? **not sure what this is** when deemed necessary for proper development? and operation of an area (with strong oversight and monitoring) to minimize adverse impacts to sage-grouse according to the Federal Lease Form, 3100-11, sections 4 and 6. **I don't understand this one—it seems confusing.**

Under BMPs on page 11: **Roads** *These are all duplicates of those on page 8 and;*

**Operations:** *These are mostly duplicates—why the redundancy? Can't the statements about roads and Operations be numbered and stated once and then later mentioned by number in appropriate sections?*

Page 12: Reclamation Redundant; **Locatable** misspelled.

#### **Fire and Fuels Management**

1) Fuels Management

a) **R1**—No Comments.

b) **R2**—Prohibiting Fuels Management treatments in known winter range is too restrictive. There may be situations where the fuels treatment is small enough or in higher precipitation zones with ample forage where treatments will be beneficial (i.e., where winter range is also brood habitat). Similarly, excluding fire in areas with less than 12-inches of annual precipitation is also too restrictive, as size of treatment definitely matters.

c) **R3**—

- Do not reduce sagebrush canopy cover to less than 15 percent (Connelly et al. 2000, Hagen et al. 2007) unless the fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage-grouse habitat. Closely evaluate the benefits of the fuel break against the additional loss of sagebrush cover in the EA process. **Reviewer comment:** *In many areas site potential will be below 15 percent, so this number seems a little irrelevant. Why not say the sagebrush will not be reduced below site potential unless required for strategic reasons? There is a need to insert some language about reducing the risk of wildfire and post-fire expansion of invasive species.*

- No treatments will be allowed in known winter range. **Reviewer comment:** *Seems a little extreme—what if there is a risk of loss of winter range that might require some treatment?*

- Do not use fire to treat sagebrush in less than 12-inch precipitation zones (e.g., Wyoming big sagebrush or other xeric sagebrush species; Connelly et al. 2000, Hagen et al. 2007, Beck et al. 2009). **Reviewer comment:** *This sort of blanket statement is bound to create unintended negative consequences. Again, I would suggest referring to site potential. Site potential in a 12" precipitation zone in eastern Wyoming is different from a 12" zone in eastern Or-*

*egon. The western part of the sage-grouse range is dominated by a winter precipitation climate, the eastern part of the range has much more summer precipitation. Temperature and thus evaporation potential during the period precipitation comes can have a big impact onsite potential. Along the some lines, north slopes have a very different site potential and set of risk factors than south slopes even in the same precipitation zone.*

- **Reviewer suggests:** It might be better to include a statement to the effect that treatments must be analyzed with regard to the risk of invasive species expansion.

d) **R4**—Clarify/define the terms “native seeds” and “non-native seeds”. Does this mean locally collected seeds, the same species of seeds collected from anywhere (BLM has had problems in the past with, for example, sagebrush seed being planted that was collected hundreds of miles away from where it was collected. Not good.), or truly exotic species?

In the third point, change “etc.” to “or other activities”, and delete the last phrase “that benefits sage-grouse”. That’s the reason it’s being done in the first place.

e) **R5**—“No treatments will be allowed in known winter range”. Are you going to sit back and have a catastrophic wildfire dictate your outcome? Wouldn’t you rather implement a fuels management plan that can reduce the chances of a wildfire taking out an entire mountain range (e.g. Montana’s). Or would you rather close the lid to the tool box and take the chance that back to back years of above precipitation occurs that buildup cheatgrass and other fuels and just wait for a dry lightning storm and see another mountain range burn completely. The wildfire storms of 1999 are not that long ago! Again this holds true for PJ encroachment as well.

Are winter ranges a constant vegetation type? No, so why would you state such an objective? These plant communities are continually changing, no matter how subtle they appear. This type of passive management is helping further degrade critical habitats. Be pro-active and vision what the habitat needs will be in 20–25 years down the road and approach the issue in this manner rather than letting outside forces dictate the destructive outcome that is sure to happen by being passive.

If a wildfire burns a cheatgrass dominated landscape, what is protecting the site from grazing for 2 years going to accomplish, other than the buildup of more cheatgrass biomass? Does someone magically think that the system will restore itself? Where the hell is the evidence of this? Is your management promoting fuel loads? Remember, with each fire season comes a cheatgrass fueled wildfire that destroys more and more unburned sagebrush islands.

Where is the table or data that suggests the probability of native seeds versus introduced seeds for fuels management or restoration/rehabilitation? How do you accomplish your goals and objectives without such information?

f) **R6**—Page 15

- Do not reduce sagebrush canopy cover to less than 15 percent. **Reviewer comment:** Why reduce it in the first place? There should be strong evidence to reduce any sagebrush canopy given the great variety of negative things that can happen during and after “reduction activity” (Connelly et al. 2000, Hagen et al. 2007) unless the fuels management objective requires additional reduction in sagebrush cover to meet strategic protection of priority sage-grouse habitat. Closely evaluate the benefits of the fuel break against the additional loss of sagebrush cover in the EA process.

Page 16

- Do not use fire to treat sagebrush in less than 12-inch precipitation zones. **Reviewer comment:** I’d prefer no use of fire in any sagebrush in a priority sagebrush area (e.g., Wyoming big sagebrush or other xeric sagebrush species; Connelly et al. 2000, Hagen et al. 2007, Beck et al. 2009).
- Monitor and control. **Reviewer comment:** How is monitoring to be done? And only the Lord knows how to control invasives post-treatment, biologists sure don’t invasive vegetation post-treatment. Does anyone really think this will happen on the ground?

3) Emergency Stabilization and Rehabilitation (ES&R)

a) **R1**—No Comments.

b) **R2**—No Comments.

c) **R3**—

- Consider potential changes in climate when proposing post-fire seedings using native plants. Selecting native plants adapted to a warmer climate with more variable precipitation should be considered given the longevity of native plants. **Reviewer comment:** There is no basis for this suggestion. To date there is no research I am aware of showing that plant species are changing their ranges. And the movements are likely to be so slow that managers will be able to adapt without introducing new species (in other words those species will have become part of the system by the time we need to actively consider them in seeding mixes). We have enough trouble establishing the existing native species on most sites. I know Interior is under pressure to “respond” to climate change, so if you must, put in a statement to the effect that species mixes will be adjusted as information on changes in species ranges becomes available.

d) **R4**—No Comments.

e) **R5**—No Comments.

f) **R6**—No Comments.

#### **Habitat Restoration**

a) **R1**—No Comments.

b) **R2**—No Comments.

c) **R3**—

- Habitat restoration objectives should include sage-grouse habitat parameters as defined by Connelly et al. 2000, Hagen et al. 2007 or if available, appropriate local information. **Reviewer comment:** (*State sage-grouse plans for example?*) Meeting these objectives within priority sage-grouse habitat areas would be the highest priority.
- Consider potential changes in climate when proposing restoration projects using native plants. Selecting native plants adapted to a warmer climate with more variable precipitation will be considered given the longevity of native plants. **Reviewer comment (bad idea-see above)**

d) **R4**—No Comments.

e) **R5**—No Comments.

f) **R6**—No Comments.

#### **Monitoring Strategy**

a) **R1**—No Comments.

b) **R2**—No Comments.

c) **R3**—

- Long-term monitoring strategy of sage-grouse and sagebrush will be developed and implemented for adaptive management. Regular updates would reflect changes in distribution in priority habitats once functional habitat is restored and used by sage-grouse.

I know invasive species can be considered a part of most sections, but given their importance relative to grouse and grouse habitat, it seems odd that the coverage of this issue is so sparse.

d) **R4**—Page 17, Sixth point “Work as an interdisciplinary team . . .” Again, this is a fundamental tenet for BLM as a management agency. It shouldn’t be necessary to remind people to do what their jobs already require. And if it’s going to be mentioned under one activity, it should be mentioned in all. A final side note here: Not all that many years ago, Fire Management was an entity unto itself and, in fact, did not always work closely with other disciplines. It may be that mentioning this here harkens back to that time and some folks may want to keep it.

e) **R5**—This section needs to be titled Restoration/Rehabilitation since the use of non-native seeds are an option.

It is very theoretical to suggest using species that are more adapted to warmer or drier climates (assisted succession) in a management plan. Are you suggesting seeding Wyoming big sagebrush in a mountain big sagebrush zone? This approach, which we have worked with for 10+ years, suggests that it works. Do you really want to make management decisions of this magnitude off of a theory?

This is not restoration, but rather revegetation. There is nothing wrong with testing this theory further, but it should probably be under fuels management, not restoration.

There is an underlying tone to use native seeds in the argument of “native”. It would be a mistake to go to a site and try and restore it without understanding the risks of such efforts. You could use needle-and-threadgrass or Thurber's needlegrass in a restoration effort @ \$135/lb and not add any value to your outcome because the lack of understanding. It is very difficult for this species to be successfully seeded, but yet we did it under the “native” argument. **Far too often seed mixes are put together under what looks good on paper or someone's ecological site description, rather than what are the chances we can get this species established and help prevent further degradation! After all, this effort is to protect and enhance sage grouse habitat, right?**

In the effort to restore sagebrush densities, it should be noted that there are levels of big sagebrush which are detrimental to big sagebrush itself. Once the big sagebrush reaches higher percent covers, long-lived perennial grasses will decrease, cheatgrass will then be the void and fire will follow. It always amazes me how many folks miss the point that cheatgrass starts under the shrub, excellent safe-site with litter and moisture, and then mines the site out into the inter-spaces. **Sagebrush does not suppress cheatgrass.** Sagebrush over-stories should be more defined and managed by the local resource managers specific to the site since it is of “highest priority”. I truly see the concern because **we are not very good at restoring or protecting sagebrush**, but sitting back and hoping that the sagebrush community is not destroyed has not worked. We aged big sagebrush communities (both mountain and Wyoming) and found the ages from 20–75 yrs of age. Mountain big sagebrush built small numbers of seed banks but really not enough to sustain itself without some type of outside help. No seed banks were recorded from Wyoming big sagebrush communities. The return of Wyoming big sagebrush on our 28 year old plots is absent, yet the mountain big sagebrush community had various return rates from 15 percent cover in 10 years to only 8 percent cover in 15 years at another site. These goals and objectives need to be flexible and more lenient or they will never be achieved for some habitats. The reality is that in many of these habitats we would be ecstatic to have 10 percent sagebrush cover!

f) **R6**—No Comments.

#### Literature Cited

Endangered first citation misspelled.

Many citations are not in this document. Assume they are in accompanying document.

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#### QUESTIONS SUBMITTED FOR THE RECORD TO MEGAN MAXELL

##### QUESTIONS SUBMITTED FOR THE RECORD FROM THE COMMITTEE ON NATURAL RESOURCES

*Question.* Are the policies and procedures in instruction Memorandum No. 2012–043 legally binding on the BLM?

*Answer.* Instruction Memoranda (IM) are internal operating policies for the BLM, and it is my expectation that the BLM will follow them.

*Question.* Will States be exempted from the applicability of the Instruction Memorandum 2012–043? If yes, please explain the exemption process in detail.

*Answer.* It is possible for a BLM field office to be “exempted” from IM 2012–043. The process is outlined in the IM itself, which exempts BLM field offices from its effect when a State or local conservation mechanism has been developed with the concurrence of the Fish and Wildlife Service and the State sage-grouse plan has been adopted by the BLM State office through issuance of a state-level IM.

*Question.* If the FWS concurs with a State's management plan, will the BLM defer to the FWS in determining whether the State will be exempted from the applicability of Instruction Memorandum No. 2012–043, and will that plan be treated as a “preferred alternative” in the NEPA analysis?

*Answer.* The “exemption” process, including the role of the FWS, is addressed in the IM itself and in response to Question 2 above. It would be premature to identify a preferred alternative at this point; rather, one will be selected at the appropriate stage in the NEPA process for the resource management planning effort currently

underway to address conservation measures to benefit the Greater Sage-Grouse. As part of that planning effort, the BLM will consider a State management plan in its development of alternatives.

*Question.* How will the Department ensure a consistent approach between State BLM offices?

Answer. The Department has established a collaborative structure to guide the Greater Sage-Grouse planning effort—including numerous teams involving representatives from various Federal and State agencies, including each affected Governor's office. For example, the Sage-Grouse Task Force is led by Governors Hickenlooper and Mead, the BLM Director, the BLM's National Policy and Regional Management Teams, and State Planning Teams. The Department believes that this unprecedented level of collaboration will ensure a consistent approach among the BLM State offices.

*Question.* How do the Instruction Memorandums [IM] and National Technical Team Report [NTT Report] comply with the multiple-use mandate of the Federal Land Policy and Management Act?

Answer. The IMs do not require any particular action on-the-ground; rather, they require the BLM to incorporate certain procedures and consider certain management actions during the NEPA process in accordance with FLPMA's multiple use mandate. During the applicable NEPA process, the BLM will consider a variety of factors, including whether a particular measure or combination of measures is appropriate in the context of its multiple use mission. Our goal is to develop and implement effective Greater Sage-Grouse conservation measures so we can maintain the maximum level of management flexibility on the lands we manage.

*Question.* How does BLM intend to use the NTT Report and IM No. 2012-044 in the NEPA analysis?

Answer. As outlined in IM 2012-044, through the land use planning and NEPA processes that are currently underway, the BLM will consider, in at least one alternative, all of the applicable conservation measures in the NTT Report.

*Question.* Is BLM relying on IM No. 2012-043 and/or the NTT Report to authorize the grazing restrictions, allotment closures, and drought management measures they are imposing in Nevada?

Answer. The BLM refers to all applicable policy and best available science in its management decisions. The drought related management measures referred in your letter are based on overall drought conditions and the impact to overall rangeland health. The drought measures in Nevada include voluntary livestock removals and subsequent requests for grazing changes, including non-use, in 2013. The requests are limited to intact native vegetation and riparian zones. While Greater Sage-Grouse habitat, if present, would be considered with the best available science, the drought measures are not specific to the Greater Sage-Grouse.

*Question.* Does the Department intend that the IMs, NTT Report or BLM's preliminary mapping efforts will require the conservation of sage-grouse to the exclusion of other resource uses, including the rights of locators or claims under the Mining Law of 1872, or other mining rights pursuant to other laws?

Answer. The land use planning amendment effort currently underway is aimed at implementing conservation measures to benefit the Greater Sage-Grouse. Through this process, the BLM hopes to strike the appropriate balance of resource uses and resource conservation to ensure the short- and long-term sustainability of Greater Sage-Grouse habitat and populations in a manner that promotes a healthy economy, protects valid existing rights, and provides a promising future for both the public and the Greater Sage-Grouse. The BLM will consider incorporating appropriate conservation measures into all of its land use plans covering occupied Greater Sage-Grouse habitat. The BLM believes that no single set of conservation objectives will apply across the entire multi-state range, or even within the area of a single State. Greater Sage-Grouse conservation efforts need to be defined at a local scale and be supported by the best available science.

*Question.* Have the IMs, NTT Report or the Bureau's preliminary mapping effort ever been used to delay, deny, or alter final determination on BLM authorizations? Please explain each such instance in detail.

Answer. The BLM is aware of some authorizations that have been delayed while our planning process is underway but a comprehensive list has not been developed. I have asked the BLM to conduct a field data call so we can assemble this detailed information.

*Question.* Was the NTT Report document peer reviewed according to the Department's Data Quality Act requirements? If yes, please provide copies of all peer review documents.

Answer. The BLM followed the Department's Data Quality Act policy and sought a peer review commissioned by the Nevada Department of Wildlife Director, Mr.

Ken Mayer. Mr. Mayer serves on the National Greater Sage-Grouse Planning Strategy National Policy Team. Mr. Mayer commissioned an outside review of the conservation measures in a draft version of the NTT Report by six scientists. A report of their comments is enclosed. A subset of the National Technical Team members met in Phoenix from December 6–8, 2011, to address many of these scientists' comments and further articulate and document the scientific basis for the recommended conservation measures. These were incorporated into the final NTT Report.

*Question.* How will the BLM incorporate the NTT Report into its ongoing Land Use Planning Strategy?

*Answer.* As explained in response to Question 6 above, the BLM will incorporate the NTT Report into its analysis as outlined in IM 2012-044.

*Question.* Does the Service believe that the NTT Report represents the baseline for conserving the species?

*Answer.* The NTT Report provides a summary of the best available scientific information for the conservation of Sage-Grouse within the framework of the BLM's planning process. As such, it is an excellent reference. As noted in the NTT Report, in some cases conservation measures identified in the Report will need to be modified based on local ecological conditions or new information.

The CHAIRMAN. Thank you very much for your testimony, Ms. Maxwell. We will now start the questioning process, and I will recognize myself first for 5 minutes.

It occurs to me, in the number of hearings that we have had, where we have had both proponents and opponents of the Endangered Species—I shouldn't say "opponents," but people have different views of the Endangered Species Act. In testimony that we have heard thus far, I have never, never heard anybody say that we should totally repeal the Endangered Species Act.

In fact, if there is one common thread that I have heard in all these discussions, it centers in two areas. It centers on process of implementing the Endangered Species Act, which we heard here today, and we hear about the transparency of the data used to make these decisions. Those seem to be the areas where people have a concern.

Now, in my State of Washington, we have been impacted, I think, greatly by listings of the Endangered Species Act. And it is interesting, Dr. Roman, you alluded to the gray wolf as being a success story. But let me tell you how stupid it is in my State as to how that listing works. In my State of Washington, specifically in Okanogan County, on the east side of Highway 97 they are delisted. On the west side of Highway 97 they are not. Now, I know that the wolf is supposed to be a very intelligent animal, but I don't think the wolf reads highway signs.

Now, this is the dumb stuff of the implementation. And yet we come in front of these committees all the time, and we hear about all of the wonderful things that can come from savings species. Nobody is arguing about that. I have never heard a proponent at any of these hearings talk about the implementation from their perspective. It is always from people that are trying to improve the act. This is where we are. And it disturbs me.

And as far as the transparency is concerned, there are a lot of questions regarding transparency. Mr. Evans, as you know, this committee requires public disclosure of Federal grants and so forth in contracts that you may have. You listed those in your application today. And your organization, the Endangered Species Coalition, has received or has finalized over \$44,000, as I understand, in Federal contracts with the U.S. Fish and Wildlife Service, just

during the Obama administration in the last 3 years. Is that correct?

Mr. EVANS. I don't have the details, but I think it is generally correct. And it is to celebrate the 40th anniversary of the Endangered Species Act.

The CHAIRMAN. Well, I am just asking about the transparency.

Now, you mentioned in your opening statement that your Endangered Species Coalition is made up of a number of organizations. I understand that the Center for Biological Diversity and the Wild Earth Guardians are part of that, that makes up your group. Is that correct?

Mr. EVANS. Correct.

The CHAIRMAN. That is correct. Well, it seems to me those two groups were the two groups that entered into this mega-settlement that I alluded to in my opening statement that has caused so much consternation around the country with this mega-settlement. Would not the fact that your group, of which these groups are part of it, getting Federal grants seem to be a conflict of interest in this whole process?

Mr. EVANS. It doesn't seem to me, Mr. Chairman, because of the way our coalition works. It really is a coalition. Each organization—which is members entitled to make its own decisions. And, matter of fact, our own board can make its own decisions, too. We don't file lawsuits as a coalition.

For example, if they want to do whatever they want to do according to their own internal processes, it really has nothing to do with whatever grant we might get from, say, Fish and Wildlife Service to help celebrate the 40th anniversary of the Endangered—

The CHAIRMAN. OK, well, let me say, then—so you say from your—you don't see a conflict with your organization. But would you see—potentially see that there is a conflict if a organization that was receiving Federal grants brought a lawsuit against the Federal Government? Don't you think there would be a conflict there?

Mr. EVANS. I guess I don't. I am a lawyer, myself. But I don't think it is any more of a conflict than a consulting biologist doing work for an agency or a county government and having their own opinion about what things might be.

The CHAIRMAN. Well, my time is expiring, and I just want to point out that those are the facts that we have seen. And there are some—there are some, including this Member—that believes that there is potential conflict when you have people on one hand receiving taxpayer dollars and, on the other hand, suing the Federal Government. There seems to be a distinct conflict. This is part of the problem that I see of process, as the implementation of the Endangered Species Act.

My time has expired, and I recognize Mr. Grijalva for 5 minutes.

Mr. GRIJALVA. Thank you very much, Mr. Chairman. And just following along with the Chairman's point, Ms. Maxwell, in the analysis that you provide us, provided the committee, as an independent biologist, consulting biologist, that work was in an independent effort on your part, or was it work provided to a client?

Ms. MAXWELL. No, it was work provided to a client. I was asked to review the NTT Report for Northwest Mining Association.

Mr. GRIJALVA. OK. I don't see it as a conflict that you can get paid by a client that has a particular interest in how ESA is implemented, and I don't see a conflict in organizations that have an interest in protecting the Endangered Species Act or critical habitats being able to use the process to litigate.

Anyway, Mr. Roman, in your testimony you mentioned that protecting endangered species protects our economy. The rhetoric coming from people who oppose ESA would lead one to believe that keeping species from going extinct is destroying our economy. What is that—what are they missing?

Dr. ROMAN. Well, thank you. As I had mentioned, it is the idea of natural capital and natural infrastructure, that these wild areas, including endangered species and the ecosystems that they depend on, provide services and benefits to the community. So it is not just about costs, it is not going to destroy our economy.

In fact, working in the field of ecological economics, as I do, the economy and the ecology are the same thing. I mean the economy is part of the broader ecology. We need to work with nature in that regard. And we will find lots of benefits, as we have when we have protected rivers. You get fisheries, you get recreation, you get all kinds of benefits from that protection, by building this natural infrastructure. We can really protect—also protect our coastlines. Natural infrastructure, what we might call horizontal levees, instead of building large, concrete structures, are more resilient and more long-lasting. So that is one of the many ways that we might be able to look at it.

Mr. GRIJALVA. Yes, when we hear the cost analysis of the Endangered Species Act, it is always on the loss side of the ledger. And the benefit side, whether it is flood control protection, drinking water, economic benefit to communities, in terms of visitations, those are never quite—don't have the prominence, unfortunately, to what the benefit side of that ledger is.

One more question, Mr. Roman. Indicator species often feel the effects of a changing environment way, way ahead of humans. And we have seen this play out as earth's climate is warmed. Mr. Foley talks in his testimony about the threat of drought both to Lesser Prairie Chicken and to the Kansas economy. Do you believe we need to heed or ignore the signals that endangered species are sending us about how climate change influences drought, fire risk, and the productivity, in general, of an area?

Dr. ROMAN. Absolutely. So, as we have heard today, endangered species are often surrogates for their ecosystems. When we say that the red cockaded woodpecker is endangered, we really mean that long-leaf pine forests are gone. And now, endangered species are showing us something temporal, something that is changing about the entire world. As many species such as the polar bear, which is disappearing in the Arctic, or coral reefs, corals are disappearing around the world, they are clear warnings that things are changing in the oceans and the climate. We need to heed that and to act on it: one, by reducing greenhouse gases, but also by mitigating or helping them to adapt.

Mr. GRIJALVA. Thank you. And a couple things for the record. Eighty percent of the litigation, of the lawsuits right now filed re-

garding the Endangered Species Act, are opponents, opposed to the implementation or opposed to the Endangered Species Act.

So, as we do the equation about all this litigation is killing the economy and keeping the process from moving forward, I think it is only fair to point the finger where the finger needs to be pointed.

I also like to point out that the Chairman of the U.S. Farm Bureau has sued the Federal Government on behalf of farmers representing many of them who, if I am not mistaken, many of them—on the Endangered Species Act who receive farm subsidies all the time. That is taxpayer's money, as I see it, as well.

With that, let me yield back. And thank you, Mr. Chairman.

The CHAIRMAN. The time of the gentleman has expired, but I thank him for yielding back.

I understand Mr. Lamborn is going to let Mr. Bishop go first, so Mr. Bishop is recognized for 5 minutes.

Mr. BISHOP. Thank you very much. He just wants to get rid of me faster.

I appreciate all the testimony that has been given here. I just have to make one comment at the beginning. Any program that is passed unanimously by the Senate and signed by Richard Nixon has got to be a priori evidence that this is a screwed-up program.

[Laughter.]

Mr. BISHOP. Mr. Albrecht, let me first start with you. You mentioned several of the issues that you were facing in Garkane Power. And it is good to see you again, Carl. Are the other Utah co-ops facing similar situations to Garkane?

Mr. ALBRECHT. Yes. There are six co-ops based in Utah. Two others have sage grouse issues, and I believe one other one has prairie dog issues.

Mr. BISHOP. OK. How much have you actually spent on ESA and mitigation in the last 3 years?

Mr. ALBRECHT. Well, I just went through and did a calculation on legal and environmental work on transmission lines for the past 3 years, and I came up with \$624,000, which amounts to about \$54.22 per customer. Those are real dollars. I mean these folks in southern Utah don't make a lot of money. They are not inside the beltway, so their income is quite low. And they are struggling. Ten percent of the land is privately owned, and so those farms, they don't make a lot of money, yet they are impacted by our regulations. And any amount on the power bill is going to be an increase.

Mr. BISHOP. We came up with co-ops in the first place back decades ago, because of the additional expense it was for electrification in rural areas.

Let me ask you one last question also about what is happening. You gave in your testimony some of the hurdles you have to jump to go through things. In your experience, does the ESA provide you with flexibility to make common-sense decisions, or is it a rigidity that stops you from making common-sense decisions?

Mr. ALBRECHT. Well, there is very little flexibility.

Mr. BISHOP. That answers it, right there.

Ms. Maxwell, if I can hit you up on a couple things. NTT stands for what?

Ms. MAXWELL. National Technical Team.

Mr. BISHOP. So, is there a conflict here? FLPMA tells us that we have to manage these lands for multiple use. That is the goal. But NTT has a different goal. Doesn't it put a different ecological value above anything else that is there?

Ms. MAXWELL. Yes, that is true. Their primary objective is to decrease anthropogenic disturbances, which then makes their objective inconsistent with FLPMA, because it puts all ecological preferences above other uses.

Mr. BISHOP. All right. I appreciate your references to the FOIA request that Governor Otter got. I thought you were too kind to Fish and Wildlife in the way you presented it.

What those internal memos simply told us is that normally you would assume people would look at the science, make some best guesses, and then come up with a decision. What I think those memos told us is the agency was making a decision, then trying to find some science to back it up. And then, when they couldn't find that, then they filled in the gaps with their best guesses, which means we have reversed this entire process with this particular agency. And I think those memos that were uncovered by Governor Otter are extremely significant at this particular time.

I want to emphasize some of the problems we have with the administration that is supposedly trying to work with the States, but does not do it. The State of Utah has a wonderful sage grouse plan. I think it is even better than Wyoming's. But the difference is our BLM has retarded the effort of the State to try and implement that plan, where they have worked with other States in a different manner. It is frustrating.

We have a grand penstemon, or whatever it is. It is a flower that, ironically, grows over oil shale only. But it can only be determined by the bloom. Otherwise, it looks like other flowers. Fish and Wildlife has said local governments can come up with a mitigation plan if they can identify it by March. The unfortunate thing this coming year, the unfortunate thing is the bloom doesn't take place until May or June, which means we have to come up with a mitigation plan before we can find out what the hell the plants are, and where they are. That is the kind of problem that this administration is placing on States who actually can do the work.

And I don't even have time to go into the John Gochner story, but some day we will—

The CHAIRMAN. Will the gentleman yield?

Mr. BISHOP. I will be happy to yield.

The CHAIRMAN. This sounds very consistent with what I was talking about, was the implementation of the plan. I mean every time we bring up these sort of things—this is a case of implementing a law. I will yield back to the gentleman.

Mr. BISHOP. And I will yield back to you, because my time is out.

The CHAIRMAN. I noticed that. Next I recognize Mr. Huffman from California.

Mr. HUFFMAN. Thank you very much, Mr. Chair. Just one quick question.

Dr. Roman, in your testimony I notice that you talked about the economic value of species, the charismatic mega-fauna, the whales, the manatees, and the eagles. And certainly, we have come to appreciate that iconic species like that have a lot of economic value,

through tourism and other things. But I wonder if you could speak a bit about the fact that those charismatic iconic species are also part of a bigger ecosystem that depends on lesser species.

And I know that a favorite tactic of critics of the ESA is always to pick out some obscure flower or some non-charismatic species, and to sort of ridicule it as not being important or not being significant. So I guess this question also brings up the broader value of biodiversity and functioning ecosystems, which clearly were an inherent value in the Endangered Species Act, which has been supported for so long with bipartisan majorities, and of course, remains very, very popular with the people of the United States.

So, it is a rather open-ended question, but I think you understand what I am asking for.

Dr. ROMAN. Absolutely. And I chose those species because they are familiar. But equally important—perhaps more important—are plants. And the primary producers in these ecosystems are essential. Nothing is going to exist without them. We have managed to—a lot of carnivores, the larger animals, have declined more quickly than the smaller ones—we thought so, at least in the beginning—because they were hunted. That was the main threat to a lot of species until about the past 50 years, when habitat became the big issue.

So, by focusing on habitat, one way to look at it is to look at the plant diversity. And you find lots of diversity in these areas. And to me, they are equally important to those charismatic animals, whether it is a mussel, a plant, or a snail. We need to protect all of them. There are spiritual/moral reasons for that, but there are also very good economic reasons and reasons why it is good for our health and well-being, as well.

Mr. HUFFMAN. All right. Thank you. I will yield the balance—

The CHAIRMAN. Will the gentleman yield to me?

Mr. HUFFMAN. Certainly, certainly.

The CHAIRMAN. I appreciate the gentleman yielding. And the gentleman talked about plants. Let me tell you again, following the same line of reasoning that I was using earlier about the implementation, and I mentioned specifically the bladderpod in the State of Washington. Let me be more specific. It is in the county I live in, just north of where I live.

Now, the listing did not include any input from any local farmers or anybody. But it said that if it were to be implemented, it would impact private property as well as Federal property.

Now, the farmers were kind of, “Where did this all come from?” And so they got permission to test the DNA on the bladderpod in Franklin County with bladderpods in other parts of Washington State and two other States. And they had a geneticist or an agronomist from the University of Idaho look at that, and they said the DNA is exactly the same in all of these areas.

Now, wouldn’t logic say, “Boy, maybe we ought to have a re-look at this?” Now, this happened about 6 months ago. There has been no re-look. Does this not suggest that the process someplace here, where everybody is upset about, needs to be looked at? So I very much appreciate the gentleman yielding to me to make that point, because nobody—as I have mentioned earlier; I think you were here when I said that—has said, “Eliminate the Endangered Spe-

cies Act." And I will yield back to the gentleman, if he wants to continue.

Mr. HUFFMAN. Well, thank you very much, Mr. Chair, and maybe that is an occasion to ask Dr. Roman an additional question.

If the science is wrong on a listing, and that can be demonstrated, is there a fix for that, and a remedy for that, under the Endangered Species Act?

Dr. ROMAN. Absolutely. Species are delisted because of taxonomic error.

Mr. HUFFMAN. OK.

Dr. ROMAN. They have been in the past. So there are opportunities for that, for them to be revisited, if that is the case.

Mr. HUFFMAN. I am not a plant geneticist, but I do think it is important to make the point that if they are correct, your constituents are correct, hopefully the system will work, and the mechanism will be available to them.

The CHAIRMAN. Well, if the gentleman will yield, since there is a little bit of time, I just want to make the point. Nobody locally in my home county of Franklin was contacted regarding this listing. Nobody was. And then they raise money themselves to test the DNA. This was 6 months ago. And still no response.

I mean I am looking to see what is going to happen. I am in the air, just like they are, on something that has proven by DNA—now, I don't know if DNA is absolutely the best test, but it has got to be a pretty good test, it seems to me.

I thank the gentleman for yielding.

Mr. HUFFMAN. Thank you, Mr. Chair.

The CHAIRMAN. Next I will recognize Mr. Fleming from Louisiana.

Dr. FLEMING. Thank you, Mr. Chairman. First of all, I would like to echo the statements of the Chairman that some of our panel members argue about the ESA as though there are Members here who actually oppose that we have protection for endangered species. Nothing could be further from the truth. And we hear name-dropping of a Republican President, former President Nixon. He signed that into law. And it is true that protection of endangered species is popular among the American people.

What isn't popular is the disruption to people's lives and to commerce that is happening through its implementation. So that is really what we are here to talk about today, not to debate whether or not it should have been signed into law some 40 years ago.

I have a question for Mr. Sikes and Ms. Maxwell. In 2007, the Fish and Wildlife Service approved guidelines to comply with the Information Quality Act. Page two of those guidelines state the following: "The quality of the information that the FWS disseminates is always important, but that certain factors such as court-ordered deadlines may limit applicability of these deadlines."

So, my question is this. Is it concerning to you that court deadlines, including the mega-settlements, could limit the quality of the ESA information FWS disseminates to the public?

Ms. MAXWELL. I think it can, because it facilitates a rush to science. And in a lot of instances, that underlying data of these reports or studies isn't then made available, not even to Fish. So it can be a problem.

Dr. FLEMING. Right. And I heard you say earlier that, often times, opinion is substituted for science. And that is problematic in a lot of the things that we deal with here, where it seems like the facts, the data, is hidden in the shadows, and get, instead, opinion, which—of course, opinion is often biased, and that is OK. But the important thing are the facts. That should be most transparent.

And Mr. Sikes?

Mr. SIKES. Yes. I mean I agree that they do—they don't provide any information, as far as I can tell from Arkansas' experience. I think I said in my comments we didn't know anything about the settlement, we didn't know anything about the science that was being brought forward, we didn't know—had we not participated in this process on this—making comments on the critical habitat designation, no one would have ever had any idea, really, what was going on in the State of Arkansas.

As a matter of fact, we missed the first deadline. And it was only through good fortune and the work of our delegation that we were able to get an extension so that we could do something. But there wouldn't have been any information provided whatsoever, as far as I could tell.

Dr. FLEMING. Well, then, to follow up on the question, wouldn't that undermine the purpose of the information quality provisions?

Mr. SIKES. I would think so.

Dr. FLEMING. OK. Also, Mr. Sikes, Mr. Albrecht, and Mr. Foley, many environmental groups have called the Endangered Species Act "99 percent effective." How would you characterize the law's effectiveness?

Mr. SIKES. Well, now, I am not an expert on it. Here in the last couple of years I have tried to bring myself up to speed. But from my perspective, from working with folks from out West—

Dr. FLEMING. Just real quickly, because I have to get to all three. How would you characterize it?

Mr. SIKES. Broken, completely.

Dr. FLEMING. OK. Mr. Albrecht?

Mr. ALBRECHT. Not very effective in its implementation. We have gone too far to one extreme. As is it now, it is affecting rural economies, people who have private land they want to develop prairie dogs on, they can't. Grazing, from the farmers and ranchers. Power line right-of-ways.

Just to give you an example, in the power business we have found that the northern goshawk, which is a species in our area, actually uses a power line right-of-way as a feeding alley. They can see the mice, the rabbits, whatever, better. And so they use those for feeding. It is just too far extreme the wrong way. It is affecting commerce, as you said.

Dr. FLEMING. Right. And, real quickly, Mr. Foley?

Mr. FOLEY. I would concur with the Chairman, as far as I believe that the process is broken and needs work.

Dr. FLEMING. Thank you. I yield back.

Mrs. LUMMIS [presiding]. I thank the gentleman. Panel, our Chairman has had to leave. Doc Hastings had another commitment. My name is Cynthia Lummis. I am from Wyoming. And I would now like to recognize the gentleman from Michigan, Mr. Benishek, for 5 minutes.

Dr. BENISHEK. Thank you, Madam Chair.

Ms. Maxwell, I find it sort of amazing—I am a doctor, OK? So I am familiar with peer review and critical analysis of studies. And I am just a little bit concerned about the fact that, from what I understand of the hearing and the testimony, that many of the scientific analyses—the reasoning is not open for review. Could you tell me about that? Because it seems to me it should all be on the Internet, we should all be able to look it up. Why is this species being made endangered? What is the data that indicate that it needs to be done?

Ms. MAXWELL. Well—

Dr. BENISHEK. Can you kind of go through that process a little bit with me?

Ms. MAXWELL. Well, some of the studies are just independent researchers, or researchers with the university, not necessarily with the Federal agencies. And they will withhold the data for proprietary reasons.

Dr. BENISHEK. So it is not published, then. This is data that is not published.

Ms. MAXWELL. That is correct.

Dr. BENISHEK. And—

Ms. MAXWELL. So, like, the raw data.

Dr. BENISHEK. People don't get a chance to see what the data is that these decisions are being made on?

Ms. MAXWELL. Sometimes they don't. I know for the sage grouse specifically, there is one study that is heavily relied on, as far as showing population decline. And the researcher involved with this modeling has refused to release the information to other researchers, to peer review, to Fish and Wildlife. He—

Dr. BENISHEK. How can data like that be used?

Ms. MAXWELL. It shouldn't.

Dr. BENISHEK. Is this a common practice? I mean, to me, I am very wary of data—I mean I would do operations in my practice, and I certainly don't change the operation that I do based on somebody's report, saying that there is a better operation, without it being copied and analyzed many times, because you don't want to do something somebody says is great, versus something you have been doing for 20 years. Do you understand what I mean?

And it is very much concerning to me that many of the decisions that we make in the—basically all through government research, is more political than it is science. Do you find that same skepticism that I have?

Ms. MAXWELL. It certainly seems that way with the sage grouse. A lot of the underlying data hasn't been made available, or Fish hasn't even requested it. And it is necessary, part of the scientific method, to be able to look at these, this data, and try to prove it and disprove it.

Mr. ALBRECHT. Congressman, if I could just add to what she said, in Utah those maps of those occupied areas and conservation areas, they are very closely held by the DWR and the Fish and Wildlife Service, and they are kind of considered confidential. They are only willing to share those for specific projects.

In other words, if we had a project for a new power line, they would share that with us. But—

Dr. BENISHEK. Why is it confidential? I don't understand.

Mr. ALBRECHT. I don't know. I have been trying to figure that out.

Dr. BENISHEK. What would be the proprietary value of it? I mean how would somebody lose the value if this information was made public? I mean they say the reason is because it is proprietary, right? It must have some value. So what is the value of keeping this information secret?

Mr. ALBRECHT. [No response.]

Dr. BENISHEK. You don't understand it. That is why I was hoping to ask Mr. Roman. Don't you think that the information and the data that we use should be open to analysis?

Dr. ROMAN. Usually it is. I don't know—

Dr. BENISHEK. Can you think of any reason why this information would be proprietary, and people wouldn't want to release it?

Dr. ROMAN. In this particular case, I don't know, yes.

Dr. BENISHEK. OK. Thank you very much.

Mrs. LUMMIS. I thank the gentleman from Michigan. The Chair now recognizes the gentleman from Colorado, Mr. Lamborn, for 5 minutes.

Mr. LAMBORN. OK. Thank you, Madam Chairman. Dr. Roman, let me ask you more of a theoretical, philosophical question. If there were an animal—and I am going to say polar bear, but any animal—that were rare in Alaska, and their population was declining, but across the national boundary in Canada it was increasing and thriving in population, would that Alaska population need to be protected, in your opinion, under the Endangered Species Act?

Dr. ROMAN. Well, this being completely hypothetical, the law would say if it is considered a distinct population segment. So if there was genetic evidence, there was some evidence that it was separate, then absolutely, it should be protected.

Mr. LAMBORN. But if it was identical?

Dr. ROMAN. If it was identical to the others, I can't answer that hypothetical question. But—

Mr. LAMBORN. Why would it need to be protected in Alaska, if the Canadian population allowed for the propagation of the genetic heritage of that animal?

Dr. ROMAN. Because part of the historic range, I would say, in this hypothetical case.

Mr. LAMBORN. OK. Well, I don't—OK.

Dr. ROMAN. It is hard for me to answer that without having some details. I would be happy to consider it—

Mr. LAMBORN. Well, you are a professor. I thought you would know these things.

OK, let me ask you another sort of theoretical question. If an animal is released into the wild—and, for instance, Colorado has a situation where they have been raising fish in captivity that are endangered or threatened, and releasing them into the Colorado River. Is there any problem with that, in your opinion, even if the habitat issues would be something you would—you would wish for habitat to be restored for that fish, but there is enough fish being released from captivity into the wild to keep that species going, you know, and thriving?

Dr. ROMAN. Well, the law is clear that you protect the endangered species and the ecosystems that they depend on. So, if it is just coming from fishery, I suspect not. In other words, coming from a hatchery. But, again, it is hard to—I am not an expert in this area. And I may be a professor, but I don't necessarily have the answers to some of these questions.

Mr. LAMBORN. OK. That is interesting, because I do have a suspicion that some people in the environmental community are really more after grabbing the habitat, and they really don't care about the species. They want the land tied up and preserved for their reasons.

One more question, and then I have a question for Megan. But I am not a bird expert, but I know among birdwatchers there is a division, a controversy at times, between what is called the lumpers and the splitters, people that lump species or subspecies together into one, and those that consider these populations actually separate.

Is the science always absolutely crystal clear, or is there sometimes subjectivity, or even arbitrariness in the scientific decisions that are made as to where one species leaves off and another one begins?

Dr. ROMAN. Well, the law, again, is clear here. It should be made by the best available science. So you bring in experts in that field, and they make that decision. It should not be arbitrary. It should be transparent, and it should be a decision made by consensus among scientists and experts.

Mr. LAMBORN. OK. And, Megan, I am going to switch to you, now. He mentioned transparency, which I agree, is a vital issue. Is the data that the Fish and Wildlife Service or NMFS uses always transparent, or is it sometimes held close by that agency?

Ms. MAXWELL. I think that Fish, the studies that they are relying on, at least when it comes to sage grouse, are generally available. But the underlying data isn't. So I don't know that I would say Fish is necessarily holding it back. It might be Fish in some instances. It might be the researcher in others.

Mr. LAMBORN. Well, in any cases. I don't mean just Fish, but in any cases.

Ms. MAXWELL. Oh.

Mr. LAMBORN. I mean I have heard that—and I am, actually, pretty much aware that they do hold that information sometimes. You mentioned data is sometimes held. That leads to a suspicion on my part that sometimes they don't want to be second-guessed.

Ms. MAXWELL. I—

Mr. LAMBORN. That is why they are not releasing it.

Ms. MAXWELL. I agree.

Mr. LAMBORN. OK.

Ms. MAXWELL. Yes.

Mr. LAMBORN. Thank you. And then, also in Colorado, a Washington Times article recently quoted Governor Hickenlooper as saying that slanted advice is being given by the Fish and Wildlife staff on whether the Gunnison sage grouse should be listed. Do you agree or disagree with that statement of the Governor's?

Ms. MAXWELL. Well, I agree that Fish relies on certain scientists over others, even though they are experts in a field. They have

preferences. And those preferences can, in some cases, lead to slanted opinions and observations.

Mr. LAMBORN. Thank you.

Mrs. LUMMIS. I thank the gentleman. And now, with my apologies to my neighbor to the North, the gentleman from Montana, for taking my neighbor to the South out of order—it was not meant as a slight or preference; I love both of my neighboring States—I now recognize the gentleman from Montana for 5 minutes, Mr. Daines.

Mr. DAINES. Thank you, Madam Chairman. A question for Dr. Roman. It was mentioned in your testimony that the ESA is one of the strongest pieces of environmental legislation in the country. I have been in business for 20 years, looking at results. I think we have listed over 2,000 species, and recovery of around 1 percent. So how can we say that is the strongest environmental legislation in the country, with, frankly, some pretty poor results?

Dr. ROMAN. Well, it depends on how you look at it. In that case, there has been some very good recovery efforts made on several species that I discussed, such as the gray whale and the bald eagle and the gray wolf. Many other species have been saved from extinction. I can't give you the exact numbers, but I will give you a ballpark estimate.

Approximately 35 species went extinct since the ESA was passed. And the expectation was, the estimate was, without the ESA, if we hadn't had those protections, we would have lost several hundred. Again, I don't have the exact numbers in hand, but I would be happy to give it to you. To me, that is a good indication that we are having success. We are protecting both species and their habitats.

Mr. DAINES. My experience, too, as a fifth-generation Montanan, is the ESA is about listing species more so than it is actually about recovery. We used the example of the wolf. It took an act of Congress to get that removed, versus objective, sound science. I am a chemical engineer by degree. I like to look at numbers, and so forth, and have clear goals. And it seems like the goal posts tend to keep moving here.

And I am going to pivot over here and talk about grizzly bears for a moment, as well. We love grizzly bears in Montana. Their populations are expanding, since they have been listed. But I also am aware of the fact that we have schools in Montana that are protected by high fences to protect the kids from the grizzly bears, as the bears now are clearly starting to thrive in my home State of Montana.

In pivoting over here to talk about the Kootenai National Forest, and we are just going to go back to Ms. Maxwell here, and we are going to talk about the sage grouse in a minute. But, as background, in Montana the ESA affects our daily lives. In fact, there are, in this mega-settlement discussion, the topic of today, there are seven species under review today. The Greater sage grouse, the wolverine and the Canadian lynx are a few. But the grizzly bear has been listed as threatened for decades. I remember backpacking as a kid. You wouldn't see a grizzly bear in the back country. Today, when you are out in the back country, you carry bear spray

usually on your left hip and your right hip, because we have got a lot of grizzly bears.

Moreover, Montana has been managing their lives around this species, and its population, as I mentioned, is becoming actually dangerous to towns nearby grizzly bear habitat. Just last month the record of decision for the final EIS of the Kootenai Forest plan was released. Now, the Kootenai is a beautiful forest, 2.2 million acres. And the community is there. They love to fish, they love to hunt, they love to recreate around this forest. This area, though, used to be bustling with a logging industry, and it is now struggling with double-digit unemployment. I met with a couple for dinner here recently, and they said, "We describe our area, the State, now as 'poverty with a view,'" and that is what it has become.

The Forest Service decided to allow timber harvesting on only 793,000 acres. In 1987, the plan had over a million acres suitable for harvest, the same time the grizzly bears are recovering.

Now, Ms. Maxwell, I am going to pivot over now to sage grouse, because it is relevant. Hundreds of thousands of acres across the West would be severely impacted under a potential listing of the sage grouse as an endangered species, in spite of outstanding local efforts to conserve the species which we hunt today in Montana—it is a two-bird bag limit—reflect the highest level of scientific integrity. In your view, how does the BLM's NTT Report fail to meet the standard of sound science? Because, in my view, it is a lot of political science versus sound science. And how does this report undermine legitimate scientific study being conducted at the local level?

Ms. MAXWELL. Well, I will start with how it is undermining local activities. Specifically, it really doesn't take into account State plans, individual conservation plans, like CCAs, or local working group plans, and how those are working. It is assuming that they are getting no protection. And so they have to have all this protection only from BLM, in order to have the sage grouse survive and persist.

And, for instance, in Wyoming, Fish and Wildlife Service actually said that the various Governor EO's have the potential to ameliorate threats to the bird. And BLM totally failed to recognize this, which is a big deal. You need to take those into account.

I am sorry, what was your other question?

Mr. DAINES. Well, it is just getting back to the sound science here, and the recovery.

Ms. MAXWELL. OK.

Mr. DAINES. Right, on the—

Ms. MAXWELL. Well, they are relying on studies that have had a lot of criticism, ranging from invalid conclusions to the source—the conservation measures that are being proposed, the sources being listed don't even reference the conservation measure restriction as necessary. It wasn't a part of the study. The study was on population dynamics, and then they are proposing a one disturbance per acre threshold. And it just doesn't support the assertion at all.

Mr. DAINES. All right, thank you—

Mrs. LUMMIS. The gentleman's time has expired.

Mr. DAINES. Thank you.

Mrs. LUMMIS. And I—the Chair would comment that, as the gentleman from Montana indicated, it took acts of Congress to accomplish delisting of wolves, and they were listed under the non-essential experimental population component of the Endangered Species Act. So they were not even listed as endangered. They were non-essential and experimental. And yet, even then, we had to use acts of Congress to get them delisted after objectives had long since been met. And I thank the gentleman for his questions.

The Chair now recognizes the gentleman from Colorado, Mr. Tipton, for 5 minutes.

Mr. TIPTON. Thank you, Madam Chair, and thank the panel for taking the time to be able to be here. This is an important issue for all Western States, very important, I know, for our district, in Colorado.

And, Ms. Maxwell, you are a Coloradoan, great to be able to have another one here. You are pretty familiar with the topography that we have unique to the State of Colorado, and the ecology in the different regions. Very diverse.

Ms. MAXWELL. Very.

Mr. TIPTON. You have spoken to this, but to be able to get it site-specific in Colorado, has the BLM, when they are designating critical habitat, taken in good, sound science in terms of designating areas of critical habitat for the greater sage grouse and Gunnison sage grouse?

Ms. MAXWELL. Well, as far as I know, they are relying on the State's maps for the priority areas, and then they have expanded the area to include corridors, at least as far as it is in the RMP revision that is going on up there. And then they have expanded it, and there is not a whole lot of science or research out there on these migratory corridors, and whether they are even present.

Mr. TIPTON. Yes. You are a biologist, and I appreciated, actually, in your testimony you seemed to be able to have a passion for having actual science. You want to be able to have it peer reviewed, to be able to have it analyzed, to be able to make sure that we are actually trying to do the right thing. But you seem to be indicating that the BLM actually is doing a fairly sloppy job, when it comes to designating these areas.

Ms. MAXWELL. Well, the critical habitat areas, a lot of it is correlated with the State's information. But the conservation measures, and the one-size-fits-all approach they are taking is what is going to really be damaging, because, as you said, the ecology of just Colorado alone is huge, let alone across 11 States and the—

Mr. TIPTON. Now, do you see a lot of other inconsistencies between the different agencies that are involved when we are talking about the Gunnison sage grouse, greater sage grouse? Are there inconsistencies in terms of the policies that they have for trying to be able to preserve habitat and to be able to reinvigorate the species?

Ms. MAXWELL. Between the State and BLM?

Mr. TIPTON. Right.

Ms. MAXWELL. Yes. The States generally have better data—from a local level—and BLM is trying to go in and require 3 percent disturbance thresholds, which may not be appropriate at that local

level. And the State and the local working groups are the ones that have that information.

Mr. TIPTON. Now, is it your experience, have you seen—if we go into Colorado, we look at the MOU that was put through in southwest Colorado, southeast Utah. I believe we have 11 different counties that are all trying to be able to put together a program of conservation, to be able to do the right thing. This is not in dispute.

Are you seeing that the Federal Government is ignoring these policies, I believe it has been something like \$40 million in public-private sector funds have been addressed, that it is just more about trying to drive an agenda, as opposed to actually reinvigorate the species?

Ms. MAXWELL. As it is reflected in the NTT, and as I have seen in the DRMP's, they haven't been taking into account the local level MOUs and plans.

Mr. TIPTON. They haven't taken into account the local levels and the local plans that are going on.

Ms. MAXWELL. Yes.

Mr. TIPTON. Yes. And we have actually seen—I have been onsite. We are seeing remarkable efforts that are being made at the State and the local levels. Do you think actually, when we are getting ready to make policy that comes out of Washington, DC—would it be useful maybe for Secretary Jewell—we have extended the invitation in this committee—for her to be able to come out to Colorado, out to Wyoming, Montana, to be able to come onsite and actually visit, and to be able to see what our Governors, our State legislatures, our local farmers and ranchers are doing, rather than a one-size-fits-all program out of Washington?

Ms. MAXWELL. I think that would be very useful for her to see the differences and what is going on out there.

Mr. TIPTON. I don't know if they are listening in today, but we will extend that invitation once again. And I know the Governor of Colorado has extended an invitation, as well. And I would love to be able to get them over into Utah, because there are certainly a lot of challenges.

I think one thing that concerns me, as well, is the short shrift that is being given on the impact of these rules and regulations on private property, impacting real lives. We have a report that came out from the Western Governors Association, saying it will have dramatic negative impacts with some of this designation, economically, the people in my region that are struggling to be able to provide for their families.

Is there any science—any concern for that one other part of the environment, the humans that actually live there?

Ms. MAXWELL. No. The NTT Report doesn't take into account impacts to humans. Its only concern is the sage grouse and protecting sage grouse at, really, any cost.

Mr. TIPTON. And I have got to tell you I have got some families that are having a tough time making ends meet right now, and they are seeing their livelihoods being threatened by some of these policies that are not being backed up by sound science, and it is going to hurt their prospects for their future, as well.

So I see my time has expired. Thank you, Madam Chair.

Mrs. LUMMIS. I thank the gentleman from Colorado. The Chair now recognizes the return of our Ranking Member, and I recognize him for 5 minutes, the gentleman from Oregon, Mr. DeFazio.

Mr. DEFAZIO. I thank the Chair. I was trying to defend U.S. interests in the Aviation Committee, but now I am back. Thank you.

I guess when I spoke at the beginning I was saying how we need to move toward dealing with multiple species in innovative ways. And although I am hearing complaints about it, it seems to me—and I will direct it first to Mr. Evans, and then to one of the other panel members—that this multi-State agreement on the lesser prairie chicken is kind of in that model.

Isn't it, Mr. Evans? Don't you think that shows some fairly—a good outcome?

Mr. EVANS. Well, I don't know the details of that one, Mr. Ranking Member, but I do know that the act is very flexible, and wants people to get together, shareholders and stakeholders, and do that. I have been listening to all the testimony from everybody here. It is very, very interesting. Because there is one thought that runs through my mind all the time. We have starved the Fish and Wildlife Service from doing its job under the Endangered Species Act.

It is a very straightforward regulatory process of sending out notice, trying to involve everybody, holding meetings. They may not even have enough money to hire more than one scientist at a time to review things. They do it, and they do the best job they can under best available science. What if they had all the money they were funded, even 4 or 5 years ago? We could have a much more comprehensive process, perhaps, that people wouldn't be so concerned about, because they would do all these things.

I think they are doing them anyhow, as far as I know, but they could do it even more so, with this. The act does encourage these things, does want people to be consulted, and work things out together. And the prairie chicken probably is a very good example of that. I don't know the details. From what I have heard of the sage grouse issue, that is another very good example. This is what we would like.

And so, I think it is there, it just needs to get better funding somehow, we hope, before it is too late.

Mr. DEFAZIO. Well, it is sort of like a habitat conservation plan, but it is different. It is under a special 4(d) rule.

And, Mr. Foley, you expressed some concerns about agriculture in Kansas. But my understanding that this 4(d) rule exempts row-crop agriculture and take, due to normal agricultural activities. So wouldn't this actually alleviate or address your concerns? And isn't this a good agreement? It seems like this worked pretty well.

Mr. FOLEY. Well, this plan, as far as the multi-State plan, was originated and built with the impetus of a voluntary plan, in lieu of a listing. It has definitely components for 75 percent of habitat, basically an opportunity to acquire different areas for habitat of short or mid-term contracts, 25 percent long-term contracts—it has a lot of components in it.

Within that plan—there are other plans that are out there, as well. Those burdens—we definitely support—Wildlife and Parks has been in that plan. We think it is a tool.

However, those voluntary measures aren't voluntary if your carrot and your stick is so short, and your carrot that is hanging there, they can see the huge axe behind your back. If it is followed up with a subsequent listing of a species, will you get the volunteers to participate to make the plan work? That is our concern. And when you have all these people get together to work and say, "We can solve this problem, we can do this, look at this plan, this is what we support and we push forward, let us do this in lieu of this"—

Mr. DEFAZIO. But—

Mr. FOLEY [continuing]. It is so difficult—

Mr. DEFAZIO [continuing]. If I could, reclaiming my time, I am reading the documents here. And it says, even if they go on to listing, they can't preclude something from being listed if it still meets the criteria for listing. But what they are doing is mitigating the impacts of any listing ahead of time, because they would still exempt take incidental to landowner participation in the initiative that has been adopted.

So, it was developed cooperatively, as a voluntary plan. But it will protect people if it goes on to a listing. I mean what would you do, have nothing in place, and then wait for them to mandate rules regarding take? I mean I have been through that in the Northwest with forestry. You don't want to go through that.

Mr. FOLEY. We believe in voluntary, incentive-based programs. And we have been in conservation—I have been, my entire career of 25 years. Whether it is any natural resources—and we are looking for tools. We want the opportunity for tools to be successful. And regardless of that position, that was the intent. And when I am discussing these points, I am discussing it for the ability or the opportunity to succeed.

And with addressing those success factors, there is more than row crop agriculture in agriculture, whether it is agribusiness—there are so many different venues, whether it is development of grain bins, development of all of these different practices, those are all—will they be covered under the 4(d) rule? That is subject to interpretation. No, in my opinion.

So, these other things that cost a lot of money in this—even these voluntary strategies, that is the issue that we are talking about, just from the agricultural perspective, not talking about the wind, oil, gas.

Mr. DEFAZIO. OK, thank you. My time has expired. Thank you.

Mrs. LUMMIS. I thank the gentleman. The Chair now recognizes herself for 5 minutes.

I would like to return to a line of questioning that was begun by Mr. Tipton from Colorado. My question is for Ms. Maxwell.

You responded to a question by Mr. Tipton to say that the NTT Report does assume that people are the primary threat to the sage grouse. So does the report consider how human impacts can be minimized or mitigated?

Ms. MAXWELL. It doesn't take into account minimization efforts or mitigation measures. It proposes restrictions. It does have BMPs that it offers to be included in whatever permitting process might be going on, but some of those aren't even achievable BMPs.

Mrs. LUMMIS. If the BLM chooses to conserve the sage grouse through the NTT, what is the end result for both species and people? And can we do better by embracing plans like Wyoming's plan? Or is the NTT the sort of top-down, one-size-fits-all approach, is it better?

Ms. MAXWELL. I think that if the NTT were to be implemented across the entire range, it would cause major disasters, especially in areas where the threat of fire and invasive species is prominent, because it is focusing its efforts on decreasing the threats of human disturbances, when that is not the threat. So, if you are not going to mitigate or minimize the actual threat, you are only hurting the species.

Mrs. LUMMIS. Did the NTT address fire and invasive species?

Ms. MAXWELL. It has fire and invasive species in a subsection. However, the way it deals with it is not as—it deals with it in more of a passive management way, and it puts, actually, sage grouse protection above that of humans. It says on high fire season days, or days where they think there might be some more fire, they would move fire resources to the sage grouse habitat, which would mean you are moving it away from structures and human developments.

Mrs. LUMMIS. Thank you. Mr. Foley, question for you. I want to add my echo to those of the Chairman, Mr. Hastings, when he started this meeting, and others who have spoken, that I support the Endangered Species Act. I am concerned about the manner in which it has been implemented and litigated. And the litigation is driving its management and implementation, rather than public policy and science.

So, I would like to hear from you about what would be a better way to deal with the Federal hammers, like litigation and listing deadlines, to create boots-on-the-ground conservation?

Say I am somebody who likes flowers better than flowery language, and I really do want to conserve an endangered flower. What would be a better way to do that?

Mr. FOLEY. Thank you, Madam Chair. I believe a better way—or getting the toolbox that we have—and let's just take the conservation reserve program under the Farm Service Agency, for example. There are other Federal agencies here that have tools. Incentive it, prioritize it under our existing acreage caps. We can go in there, place the rank, the priority high enough, raise the incentive rates high enough within these types of conservation programs. Just re-prioritize and direct these areas where we don't have that regulatory hammer—continue the participation, deal with those enrollments, deal with other issues such as drought, where we have not only had reduction in all—whether it is pheasants, quail, all of our upland game, whether it is greater or lesser prairie chickens—

Mrs. LUMMIS. Mr. Foley, I want to sneak another question in before I run out of time—

Mr. FOLEY. OK.

Mrs. LUMMIS [continuing]. For Mr. Sikes.

Should State and local governments have input before the Federal Government signs court settlement agreements that drive ESA policy?

Mr. SIKES. Absolutely. We are living through this one right now, where we had no idea what was going on, had no input whatsoever. And it is just suddenly forced down our throats.

And could I make one other point?

Mrs. LUMMIS. Quickly.

Mr. SIKES. Very quickly. On the programs that you can do at home, we put together an unpaved roads working group in Arkansas before any of this stuff really went into effect, tried to mitigate the damages of sedimentation caused by unpaved roads, because we understand that is the majority of sedimentation for our aquatic species that are under threat, and that is State, Federal, local, public, private. We have gotten some money to do a couple of demonstration projects, and we have gone back to our legislature, and we expect to get a larger pilot program going. So we are not just focusing on complaining about litigation, we are actually trying to do something about it.

Mrs. LUMMIS. I thank the panel. My time has expired. And I yield to the gentleman from California, Mr. McClintock.

Mr. MCCLINTOCK. Thank you, Madam Chairman. This first question will be for Mr. Sikes and Mr. Albrecht and Ms. Maxwell, all of whom seem to have some practical experience with this. The U.S. Fish and Wildlife Service is proposing to declare about 2 million acres in the Sierra Nevada Mountains as a critical habitat for the Sierra yellow-legged frog and the Yosemite toad. That is pretty much the entire footprint of the Sierra Nevada Mountains.

Now, we are told the designation was going to have no impact on private property owners, it will only have a negligible impact on the public's access to the public's land. Mr. Sikes, is that true?

Mr. SIKES. That is not my understanding. Certainly not how the litigation goes with the designation of critical habitat.

Mr. MCCLINTOCK. Mr. Albrecht, is that true?

Mr. ALBRECHT. Not to my knowledge.

Mr. MCCLINTOCK. Ms. Maxwell?

Ms. MAXWELL. I think designating that large of an area will definitely have impacts.

Mr. MCCLINTOCK. OK. Well, Mr. Sikes, what should I tell private property owners to expect if this designation is imposed?

Mr. SIKES. I think you could tell them they have probably got a bulls eye drawn on them.

Mr. MCCLINTOCK. What does that mean, exactly, in—

Mr. SIKES. Well—

Mr. MCCLINTOCK [continuing]. Terms?

Mr. SIKES [continuing]. I think what they can expect is—I will give you an example of one of the bad effects of it. Because the ESA provides for private right of action, we have actually got two property owners in a critical habitat area just above Little Rock that are suing each other, and have brought in the Fish and Wildlife Service, because one property owner is trying to outspend another one to force him to sell him his property. And one property owner owns the property above him and below him, so he is trying to get that property in the middle. And he turned him in for doing some dirt work on his property that he said would impact the yellowcheek darter. So—

Mr. MCCLINTOCK. But if the designation has no impact on private property, what is the beef?

Mr. SIKES. I mean there you have it. I mean it does have impact on private property.

Mr. MCCLINTOCK. Mr. Albrecht, what can you advise me to tell these folks what to expect?

Mr. ALBRECHT. Well, I think you need to tell them that if the trees are infected with the western pine beetle, it might be good to cut some of them for fire protection and protect their properties.

This is the problem with the whole ESA. We don't sit down and look at all the impacts across the board. We need to bring some common sense into it. Yes, maybe they can clear some property for this frog. But maybe they can also do some good for the property owners, if there is some beetle-killed timber in the area.

Mr. MCCLINTOCK. Well, again, this is 2 million acres.

Mr. ALBRECHT. That seems a little extreme.

Mr. MCCLINTOCK. Well, yes.

[Laughter.]

Mr. MCCLINTOCK. By the way, what can you tell us to expect, as far as the impact on the public's access to the public's land? This is an area that desperately depends upon tourism and public visitors coming to the area to recreate.

Mr. ALBRECHT. Look from a distance.

Mr. MCCLINTOCK. Basically it will be look, but don't touch?

Mr. ALBRECHT. Yes.

Mr. MCCLINTOCK. Well, that doesn't sound like a lot of fun. I am afraid we might not have the kind of tourism that we once had under that kind of—

Mr. ALBRECHT. The older people won't have access, the younger ones that can hike in will.

Mr. MCCLINTOCK. Ms. Maxwell, anything to add?

Ms. MAXWELL. No, I agree with Mr. Albrecht.

Mr. MCCLINTOCK. For you, we have heard many examples in this committee of politically driven junk science that is masquerading under the phrase "best available science," and I mean stunning gaps in data that—anything that is contrary to predetermined policy outcomes seems to be omitted, quite deliberately, from these studies. There have been basic math errors.

In your written testimony you mentioned a number of examples: invalid assumptions, mischaracterization, or misrepresentation of sources, omission of existing programs that benefit the sage grouse, personal opinion substituted in place of science. Is this problem isolated, or are we seeing it systemically throughout the system?

Ms. MAXWELL. Well, my expertise, I guess, is in sage grouse and the NTT and what is going on there. But I guess I wouldn't be surprised if it was going on elsewhere, because it seems to be a management problem.

Mr. MCCLINTOCK. Are we making policy based on pre-determined outcomes?

Ms. MAXWELL. On the sage grouse, definitely.

Mr. MCCLINTOCK. And, if that is the case, then how can we trust the validity of any of these designations?

Ms. MAXWELL. Exactly.

Mr. MCCLINTOCK. On hatchery issues, I think it was Mr. Roman mentioned the great success of breeding programs for eagles, for example. Yet captive breeding isn't allowed to be included in many of these decisions involving endangered species, despite the fact it is often infinitely cheaper and more effective than other measures that can end up being ordered.

On the Klamath, in my old district, we had a situation where they are pushing to tear down four perfectly good hydro-electric dams because of what they describe as a catastrophic decline in salmon population on the Klamath. I asked them, well, why doesn't somebody build a fish hatchery, and we were told, well, as a matter of fact, there is a fish hatchery at the Iron Gate Dam that produces 5 million salmon smolts a year, 17,000 return annually as fully grown adults to spawn. The problem is, they don't allow us to count them in any of the population counts for ESA. And then, to add insult to insanity, when they tear down the dams, the fish hatchery goes with it.

Wouldn't it be more practical to allow captive breeding programs in all cases involving the ESA to not only mitigate the damage, but also use the product of these breeding programs to assess whether these species are still endangered, Ms. Maxwell?

Mrs. LUMMIS. I ask the answer to be brief.

Ms. MAXWELL. OK. I think that allowing breeding as part of a program for ESA would be great.

Mr. MCCLINTOCK. Thank you.

Mrs. LUMMIS. I thank the gentleman from California, and now recognize another of our fine gentlemen from California, Mr. LaMalfa, for 5 minutes.

Mr. LAMALFA. Thank you, Madam Chairman. Following on Mr. McClintock's question and statement there—we share much of that eastern side of California, Sierra Nevada area, so the frog and toad designation, the dam removal, those area issues that we have both been intimately involved with over our time.

And the flaw in the thinking here is that, for example, on the fish designation, whether we are replacing with hatchery fish or other grown species, and it was mentioned earlier with other species, that there is no DNA difference between them, given their geography or where they came from, yet we are not allowed to count that as a recovery.

I mean the bottom line—in the minds, I think, of the American public, they care about species. They care about being able to see it or knowing that it exists. And so, when you show that there is no difference in the species, depending where it came from or how it got there, but that they are still around to enjoy or view or see in picture books, what have you, that is part of the problem of the thinking.

It was alluded to earlier, I think, on the gray wolf. Now, some of the thinking in our region is that there has to be mating pairs in basically almost every county, or something like that, as part of a plan, a recovery act, or what have you.

Now, the compatibility with the gray wolf with livestock, with communities—I mean I don't think the counties surrounding Portland or surrounding Redding, California really want to have the gray wolf in their back yard. But if we can all just know, as Ameri-

cans, that the gray wolf is doing well in the upper-middle States along the Canadian border or in Canada, we know we have the North American gray wolf as a species, it is still around. It doesn't have to be everywhere. And I am just glad that we don't have a plan for the recovery of the T-Rex or the velociraptor to have to be in our neighborhoods.

But I am frustrated that, when we lay out these goals under ESA, that, although there may be some number that is pointed to for a species being threatened or endangered, that there is never a number of when we have reached our goal. What is the goal? What is the target we are shooting for, so that we have recovered it, that we can remove it from threatened or endangered?

It was mentioned earlier about the ESA being 99 percent effective. By whose measure is it being that? Because we are seeing that in the 40 years of the ESA, we have recovered 20 or less species of the hundreds and hundreds listed. Twenty percent or less have been removed from the list. We have great frustration in my neighborhood, with one called the Valley longhorn elderberry beetle. It has held up critical flood control projects that have been needed for many years in the area, not because of the beetle itself, but because of the critical habitat designation, which is fraught with problems, as we mentioned, everywhere. Two million acres for the toad and the frog.

Here we have a problem where, if you have an elderberry bush growing on a levee—maybe a beetle has not visited that bush ever, or in years—you can't touch the bush in order to fix the levee. And so, subsequently, a couple decades ago, a massive blow-out was had on the levee, lives were lost, hundreds of millions of dollars worth of damage, the State of California lost a lawsuit, having to reward over \$400 million because they couldn't fix the levee because of a habitat designation for something the species is not even using.

We have much to do on critical habitat designation, and that is really one of the bigger flaws. Because I don't think there is anybody on this panel that doesn't care about trying to take a truly endangered species and figure out where to go with it. On the other hand, I heard a statement earlier that somewhere along the line somebody said we shall not—we, as people, shall not permit any species to go extinct. Well, we have only been industrialized, truly, as a country, for probably maybe 150 years or so, 150 recent years, that we would have any kind of sizable impact on changing an environment. And yet species have been going extinct for all of the existence of the earth.

And so, for mankind to think, in his arrogance, that we are going to single-handedly stop the natural evolution of the God-made system, to the extent it is being done, to the headstands that we are taking to spend money, to take people's property rights, and, indeed, the recovery rate of an Endangered Species Act over 40 years that has been spending hundreds of millions or more of tax dollars, and billions taking away from the people to get such poor results, a major re-thinking is needed of this act, one that is going to be effective for species that people care about.

Because if regular people heard what the gentleman from Utah was talking about with putting a pole line adjacent to a regularly traveled roadway or dirt road or gravel road, whatever it is, and

having these helicopters to haul them 20 yards because of prairie dog habitat, which has a season on it, and everybody else in the neighborhood is using their four-wheelers and vehicles like that to do their farming and other practices, it really comes down to ridiculous. That is what the public doesn't hear about. All they hear about is the bleating from the environment groups, like, "Oh, we are going to lose all these species," except they are not hearing what it is really costing them in jobs in this bad economy and everything else that is going on.

And so, Madam Chairman, I yield back, but we have much to do on this, and much to overcome with misinformation on this act. Thank you.

Mrs. LUMMIS. I thank the gentleman and recognize the gentleman from Florida, Mr. Southerland.

Mr. SOUTHERLAND. Thank you, Madam Chair. Dr. Roman, I had some questions. You alluded in your testimony to my particular region, northwest Florida, you made reference to Apalachicola. I had some questions regarding an issue that is very important to our folks there, the Apalachicola River Basin and the river.

In your testimony you said it appeared that several of the mussels which you alluded to—appeared that they were in direct conflict with human activities in our region. Define human activities for me.

Dr. ROMAN. I am sorry if I was vague in the testimony. So, in that regard, it was Atlanta drawing off water—

Mr. SOUTHERLAND. It was what?

Dr. ROMAN. It was Atlanta drawing water upriver and lowering the water table in that regard.

Mr. SOUTHERLAND. OK. So you agree—

Dr. ROMAN. That is the conflict I know.

Mr. SOUTHERLAND. So you agree—because, as I read through your testimony, you referred to a drought in 2007. And you referred to flooding forests, and the need for flooding forests. But nowhere did you specify the water flow issue.

Dr. ROMAN. So that would have been an error on my part. That was my intent, was looking at that water flow issue, and talking about the fact that residents of Florida were in equal state as they were with the two endangered mussels, the purple bankclimber and the fat threeridge, in that they both depended on water.

Mr. SOUTHERLAND. They both what?

Dr. ROMAN. They both depended on water flow—

Mr. SOUTHERLAND. Yes.

Dr. ROMAN [continuing]. Getting into the Apalachicola estuary. So I was saying that the water unites both groups in that way.

Mr. SOUTHERLAND. Sure, OK. Well, then, you and I agree there. I mean I look at when you have had 50 percent reduction in water flows, it is having a—you did allude to the oyster industry down in Apalachicola. That is the heart of my district. And so, if you look at that area, our folks and families down there are being crushed because of the water flow issue.

Earlier in your testimony you mentioned spiritual and moral reasons regarding the ESA. I am just curious. Rarely do I have someone testify and inject spiritual and moral reasons why we do things. And, as a spiritual person, I locked on to that. I mean is

it spiritually or morally valid to exacerbate the pain and the suffering on habitat and humans downriver by the Corps' continual ignoring those needs, and not addressing water flows down the ACF, the Apalachicola, Chattahoochee, Flint River system?

Dr. ROMAN. I agree with you completely. No, I don't think it is moral at all. I think that water should flow there, as I had said, for the wildlife that is there, for the flooding forests, for your residents in your district. I have met with the oystermen, I have been down there, as well—the 1,200 oystermen that work there. I have seen the folks that harvest Tupelo honey, as well, dependent on those flooding forests that provide storm protection. I argue and agree with you that water should be coming to Florida, and should be coming to the endangered species that are there, and the residents of that area.

Mr. SOUTHERLAND. I find it ironic that I am able to—perhaps you and I may disagree on many things, but I find it ironic that you and I agree, I believe, in our stance that we think that the Corps of Engineers, on this issue, is immoral, because of what they are doing. And I am very frustrated by a 50-year battle.

And we are prioritizing human recreation at the expense of total devastation to a community where 60 percent of its property is owned by government, so, therefore, they have little to no ability to raise a tax base to protect its citizens. And I find that this is an area where government and those who appropriate dollars from the public treasury are, in fact, immoral and lack the spiritual direction that I think the good people of our region expect. So, I think it is ironic that you and I agree on this.

Dr. ROMAN. I am glad we do.

Mr. SOUTHERLAND. And I thank you for your testimony. One thing we may—I am going to shift real quick. You also alluded to the fact of the long-leaf pine in the Apalachicola area in our region—and I know I am losing my time, so I will ask quickly. You talk about how 99 percent of the native long-leaf pine forests were cut down, endangering many of its residents, including the red cockaded woodpecker.

Where is the incentive on the protection of this particular species, where is the incentive? Because of the ESA, for a land owner to harvest his marketable long-leaf pine, to replant his property with seedlings to produce another long-leaf pine forest—if knowing that habitat is going to usher in the stripping of his property rights?

Dr. ROMAN. So the ESA now has safe harbor. And your resident should know about this. So you can go on and register your land. If you don't have any red cockaded woodpeckers on your land then the Fish and Wildlife Service will come out and say, "OK, there are none there," then you can plant that area and not have to worry about those restrictions if you register early on. Or if you have one there, that you won't have to worry about more coming in.

So, that is an issue that has been a concern to biologists for a long time, and I think it is being addressed.

Mr. SOUTHERLAND. Well, God help them if, after the registering, a red cockaded woodpecker might irresponsibly find its way on to that property owner's property. So—

Dr. ROMAN. It is intended to protect them for that.

Mr. SOUTHERLAND. Yes, I understand. All right, I apologize for going over time, Madam Chair. I yield back.

Mrs. LUMMIS. I thank the gentleman. And now, with recognition of the patience of the gentleman from Kansas, he is now recognized for 5 minutes. Mr. Huelskamp, the floor is yours.

Mr. HUELSKAMP. Thank you, Madam Chairman, and particular thanks to the committee for allowing me to join here today, as I am not a member of this committee. And I appreciate the Kansan that is here. I have a few questions for Mr. Foley and others.

First, there has been some discussion in your testimony on the lesser prairie chicken. What has happened with the population of the lesser prairie chicken in Kansas in the last decade?

Mr. FOLEY. In the last decade, as you aware, Mr. Huelskamp and Congressman—I appreciated the opportunity to work with you over the years—we have had multiple counts and the counts range—I think the most current count was around—the populations of those were about 17,000. It goes back to validating data and some of the other discussions today, with target ranges in that 46,000 to 67,000—it depends who you read, as well.

We have had peaks and dales. I think it has been greater over time. And then, with our 3 years of consecutive drought in your congressional district, it has probably had some declines, just like everything else.

Mr. HUELSKAMP. But the numbers have increased or decreased in the last decade or so?

Mr. FOLEY. In the last decade we went from very low numbers to very high numbers, 30,000 to 40,000. And if we are in the 20,000 range now, it has kind of increased, decreased a little bit—

Mr. HUELSKAMP. Even with the decrease now, are the numbers still higher than they were—

Mr. FOLEY. Yes.

Mr. HUELSKAMP [continuing]. A decade ago?

Mr. FOLEY. Yes.

Mr. HUELSKAMP. And that was without a listing, and the numbers have still increased?

Mr. FOLEY. Yes.

Mr. HUELSKAMP. What do you attribute that to?

Mr. FOLEY. Well, we believe it was to the Federal program, the conservation reserve program. A lot of those particular habitats, we have had a lot of conservation reserve acres that is in my testimony throughout the years that we had a lot of habitat, a lot of voluntary conservation measures and managers out there providing that habitat.

Mr. HUELSKAMP. What do you think a response—I know you worked with a lot of farmers and ranchers over the last 20 years—in your experience, what would be the response if there was a listing and, instead of voluntary, it all became mandatory? How helpful and interested in progress of the lesser prairie chicken would Kansas farmers and ranchers be, in your opinion?

Mr. FOLEY. Well, Congressman, it is definitely a concern of mine. And I believe the response will be pushing the other direction to disenroll, to move the lands out of programs that were put there to benefit wildlife and—

Mr. HUELSKAMP. Yes, that would be my guess, there would be a reaction the other way, especially after all the progress that has been made, a tremendous amount of progress, without the Federal Government or the courts dictating this.

When the settlement was reached in the courtroom, I think it was a secret agreement. When was the State of Kansas informed about this settlement for the requirement that a listing decision be made by March?

Mr. FOLEY. I would have to look at our testimony. It was early on. Basically, when they announced the notice of publication, when we—

Mr. HUELSKAMP. Were you in the room when the settlement was made?

Mr. FOLEY. No, sir.

Mr. HUELSKAMP. Do you know who was in the room?

Mr. FOLEY. No, I do not.

Mr. HUELSKAMP. Do you think we should know who was in the room?

Mr. FOLEY. I think it would be important for the American public to know, yes.

Mr. HUELSKAMP. Yes. Do you think, though, that the State should have the authority to pre-approve these type of secret settlements?

Mr. FOLEY. I think the State should be involved in any settlement that affects their land.

Mr. HUELSKAMP. Yes. Recently my office received official notice from Fish and Wildlife Service saying that they intend to release the Topeka shiner minnow—this was last week—endangered species in Logan County, Kansas. Do you know what caused this, or who has the authority to do this? And was the State involved in this?

Mr. FOLEY. To release the minnow?

Mr. HUELSKAMP. Yes.

Mr. FOLEY. In a very, very arid climate? Where are they going to put it, I guess, would be my first question. Where are you going to find the water? We don't have a lot of surface waters in northwest Kansas. I am not aware of that.

Mr. HUELSKAMP. OK.

Mr. FOLEY. We have had other reintroduction in Logan County, with the black-footed ferret, which is a different issue.

Mr. HUELSKAMP. For folks that are—and, Mr. Evans, you are obviously very familiar with this law. There is nothing in the law that would require or justify letting the State know that there is the intention, in this particular case, in a very dry, arid climate, to reintroduce a species that has not existed there for years?

Mr. EVANS. It was very interesting, Mr. Congressman. I never heard this before. Generally, we know the law tries to do everything possible to notify everybody. I don't know what happened here in this specific detail. But, of course, it is a good idea for the State to know in advance, especially if this is an arid place like it is. And I would like to know more detail, because it sounds unusual in my whole experience.

Mr. HUELSKAMP. And, actually, in my experience, particularly in northwest Kansas, this is par for the course with the Fish and

Wildlife Service, as we demonstrated with discussion of the lesser prairie chicken. The intent to proceed ahead without notification, without working with local folks, without working with the State—I guess I was somewhat thankful they have actually agreed to actually review the lesser prairie chicken reintroduction plan.

But what is interesting—and I will say this, and I apologize for going over time, Madam Chairman—but the Director was asked about the fact that Kansas still has a hunting season, the lesser prairie chicken, because we have done such a good job, and was asked, “Do you plan on allowing the hunting season to continue in Kansas,” and his answer was yes. I think everybody in the room thought that’s the silliest thing we have ever heard. Of course, my constituents think the same.

But the more silly answer was when asked about the fact the Kansas population is going down. Actually, the New Mexico—or Kansas is going up, New Mexico is going down. The Director was asked a question, “What about catching the birds in Kansas that you are going to hunt, and instead, releasing them in New Mexico? Would that help meet the goals of this listing?” And he said, “We are considering that option.”

I mean that is the foolishness that Kansans see in these approaches from Fish and Wildlife Service. We are making progress, Greg. I appreciate the efforts in Kansas.

I yield back, Madam Chairman.

Mrs. LUMMIS. I might note that on my very own ranch the swift fox was captured for reintroduction elsewhere with our full co-operation. And so those activities have continued for a long time. And in Wyoming, as well, there is a hunting season on the sage grouse, even though they are headed in other parts of the State for a difficult sailing.

I thank the gentleman from Kansas for being with us today. And, in recognition of the impeccable timing of the gentleman from Pennsylvania, I now recognize Mr. Thompson for 5 minutes.

Mr. THOMPSON. Well, I thank the gentlelady, and I thank the gentleman from Kansas for going over, which allowed me to get back here in time from the House Floor. And I thank the panel. I apologize, I was here for a fair amount of the beginning, and I apologize, I had to leave.

My observation of where we have gone with the EPA, like sometimes other areas—I do believe when the ESA—when the Endangered Species Act was put in place, it was put in place by folks who were strictly scientists, and not advocates. And, for me, I think the difference is a scientist uses scientific methodology, a scientist does not have a bias.

Advocates—and I have a lot of advocates come to my office every day to see me—they have a strict bias coming in. And this is just—I am not looking for a response, but just my observation on this is we have way too many advocates in our agencies today, and not enough scientists who really go based on pure scientific methodology.

And at the risk of—and I am a huge supporter of higher education. So, Dr. Roman, a question for you—more of a reflection in terms of the state of—you are kind of a representative for higher education, and a lot of great researchers that we have out there,

it kind of reflects on some of the discussion I heard early on, in terms of proprietary information, and how that is not made available.

And specifically, the underlying data that would be so helpful, in terms of explaining rationale, help to guide better policy development, but a lot of that—unfortunately, I see a lot of government-funded research that we don't see a return on investment from, from investing in to with our researchers, because too much of that is held back, and too much proprietary—and I am wondering how much of that do you see the role of that, of specifically where it is basically, it is held back and considered proprietary because it is the basis for securing future government funding for research, versus doing what it truly should do, make it transparent, roll it out for the greater public good.

I don't know if you are prepared to comment on that, or your thoughts.

Dr. ROMAN. Well, personally, any time I have gotten public funding, I have published that. So it has always been on public record.

Mr. THOMPSON. I appreciate that.

Dr. ROMAN. And, in fact, we make it available to the public for free.

Mr. THOMPSON. And I wasn't really looking specifically at you, but your observation is academia, as a whole—

Dr. ROMAN. Yes.

Mr. THOMPSON [continuing]. Research—

Dr. ROMAN. To my knowledge, the vast majority of decisions under the Endangered Species Act, and broadly in conservation, are available online.

Mr. THOMPSON. Well, the testimony that I witnessed earlier talked about a lot of underlying data not being—OK. I just was interested—

Dr. ROMAN. I can't address that specific case.

Mr. THOMPSON. All right.

Dr. ROMAN. But I would say, in general, it is available.

Mr. THOMPSON. OK. Ms. Maxwell, in 2010—and I apologize if I am kind of re-plowing ground, since I wasn't here for some of the questions—specifically to the greater sage grouse, which I obviously don't have a problem with in Pennsylvania, and thankful of it, though I do enjoy grouse season, ruffed grouse season, in Pennsylvania, hunting season, it was identified by Fish and Wildlife as a listing priority.

I was just kind of curious of the switch from priority eight to priority two. In your opinion, was that driven by science—just kind of curious what your observations were.

Ms. MAXWELL. Well, I wasn't aware that it had been lowered to two. But between—

Mr. THOMPSON. I may have that flipped around, actually. It was moved to a higher priority, whatever way the—

Ms. MAXWELL. That is the way it goes. That is the way—it goes down to go up.

Mr. THOMPSON. OK.

Ms. MAXWELL. But between 2010 and now, there have been a lot of new studies coming out. Some of the ones that I have seen are actually showing it is more accurate science. And from some of the

studies I am seeing, it shouldn't have been lowered, because the populations seem to be responding well to mitigation, especially in areas where it was heavily studied that they are declining, like in the Pinedale area. That was where a lot of the studies are showing a decrease in population.

But now there are newer studies coming out where it is showing that is not necessarily the case any more. So I would be surprised for it to have been lowered.

Mr. THOMPSON. Mr. Foley, thanks for your service to agriculture. As the Agriculture Subcommittee Chairman, greatly appreciate it, your work in Kansas.

I find that better public policy occurs when we don't do it in a vacuum, when we get out—certainly outside the beltway, or outside the agencies, and we have a spirit of collaboration with looking at full impact on communities, on the biosphere, everything. And, quite frankly, I would argue that the most endangered species we have today are individuals who live in rural communities and rural communities themselves can be on the line—be on the way to being ghost towns, as a result of regulations.

Your thoughts, in terms of—should we be doing a better job at getting that collaboration, the Federal Government reaching out to the States, to the communities?

Mr. FOLEY. Thank you for your kind comments. I think it is critical. I really believe it. Obviously, we have 105 counties in Kansas, we have a lot of sparsely populated counties. I am talking 3,000 to 5,000 people in a county that is 30 miles square. So a lot of land mass. And we have low populations in it.

Everything that has an economic impact to your engine—and our engine is agriculture—is relative to schools, is relative to how do you keep your function, your grocery store, open. Are you willing to truck your kids 75 miles? Are you going to move them to a city where they can be educated? That is the reality of when we start doing things that have this significant of an impact, and you start reducing that tax resource, whether it was from agricultural lands, and you change the use value of those acres of land. It is critical.

If I had a row crop irrigated use value, or a dry land use value, then it is on the tax rolls, part of what we are paying in for our school infrastructure. It is all relative. It is all relative. And everything that impacts that engine, the trickle impacts, whether it is the agribusiness deal or the selling tractors or fertilizer or seed or the packing plants where we are feeding the cattle, we are taking our corn to the feed lots, all of those things are relative to these activities.

And our concern, in addition to that, is that we are a price-taker economy. In our economics, in agriculture, we don't have the opportunity to set the price for our product. So if Illinois, or even in the rest of Kansas, they didn't have these additional costs, then you just moved production. So it lends right to your ghost town theory. They just move out of there, because I can't afford it, because I can't say, "Well, I had an additional cost of \$12 per unit, I will raise my price." It doesn't happen that way. That is our passion, our concern about agriculture.

Mr. THOMPSON. Very good. Thank you to the panel. Thank you, Madam Chair.

Mrs. LUMMIS. I want to thank the Members, particularly the panelists, for your extraordinary participation, for your expertise, and for your thoughtful commentary. I want to thank our guests and our staff, both sides of the aisle. And everyone on the panel today, I believe, has the same stated goals.

And I could relate, as Mr. Southerland said, to the reference that there are spiritual and moral reasons to be good stewards and good caretakers of our land and our water, and to the species of the earth. So our goals are the same. And it is my view that, since the Endangered Species Act was enacted in 1973, those goals have become embedded in the American psyche.

But the problem is we are still administering it and enforcing this law by a 20th century litigation model. It is like using an Edsel in 1913—or rather, in 2013. We really have moved beyond the Edsel, in terms of our understanding of the technology of the automobile. And I would assert that we have moved beyond 1973 in terms of our ability to save species. We understand the scale of the habitat that is required. We understand the science that is useful to recovering species, what activities, and what specific people on the ground are best able to recover those species.

I believe it is time that the law and the rules and regulations caught up with our ability, as Americans, to conserve and preserve species. So I am hopeful that, as we move forward with this effort, to have a 21st century conservation model that recognizes that these values and goals are embedded in the American people, will actually allow us to implement boots-on-the-ground conservation, and not just flowery language in courtrooms about the importance of the Endangered Species Act.

With that conclusion, I once again want to thank our panelists for their extraordinary testimony. This hearing is now adjourned.

[Whereupon, at 12:41 p.m., the committee was adjourned.]

### [Additional Material Submitted for the Record]

LETTER SUBMITTED FOR THE RECORD BY MARK N. SALVO, DIRECTOR,  
 FEDERAL LANDS CONSERVATION,  
 DEFENDERS OF WILDLIFE,  
 WASHINGTON, DC, DECEMBER 26, 2013.

The Honorable DOC HASTINGS,  
*Committee on Natural Resources,*  
*U.S. House of Representatives,*  
*1324 Longworth House Office Building,*  
*Washington, DC 20515.*

The Honorable EDWARD MARKEY,  
*Committee on Natural Resources,*  
*U.S. House of Representatives,*  
*1329 Longworth House Office Building,*  
*Washington, DC 20515.*

DEAR CHAIRMAN HASTINGS AND RANKING MEMBER MARKEY:

I am writing on behalf of Defenders of Wildlife to submit comments in response to testimony presented at the recent oversight hearing, “ESA Decisions by Closed-Door Settlement: Short-Changing Science, Transparency, Private Property, and State and Local Economies,” held by the Committee on Natural Resources on December 12, 2013. We are concerned about the veracity of statements by majority witnesses concerning the potential listing of the lesser prairie-chicken under the Endangered Species Act [ESA] (16 U.S.C. § 1531 *et seq.*) and conservation planning for

the greater sage-grouse. Defenders of Wildlife is a national, non-profit, public interest conservation organization with expertise on both species and related administrative processes. We respectfully request the committee to include our submission in the record for the oversight hearing.

#### LESSER PRAIRIE-CHICKEN

The witness (Greg Foley, Executive Director, Division of Conservation Kansas Department of Agriculture) who testified on the possible listing of lesser prairie-chicken (*Tympanuchus pallidicinctus*) understated the need to protect the bird under the ESA and overstated the potential effects of listing on use of private property in his oral testimony.

**The lesser prairie-chicken has been reduced to less than 10 percent of its historic distribution and populations have experienced long-term declines.**

The witness gave an overly optimistic report of the species' status in Kansas. Using the best available science, the U.S. Fish and Wildlife Service (Service) found that despite existing conservation programs, the "current statewide trend (in Kansas) in lesser prairie-chicken abundance between 2004 and 2009 indicates a declining population" (77 Fed. Reg. 73848). A subsequent population survey conducted in August 2013 for the Western Association of Fish and Wildlife Agencies documented further population declines, finding that the species' abundance had plummeted approximately 50 percent range-wide during the previous year (McDonald et al. 2013, unpublished report).

**Listing lesser prairie-chicken would have negligible effects on use of private property.**

The witness overstated the potential impacts to "food and fiber production" and "personal property rights" from Federal listing of the lesser-prairie chicken. On December 11, 2013, the Service proposed a special "4(d) rule" that would exempt a host of activities from having to comply with the ESA's prohibition on "take" of the species if it is listed (78 Fed. Reg. 75306). Exempt activities include most "routine agricultural practices" on currently cultivated lands and almost all ordinary ranching and farming practices on privately owned agricultural lands enrolled in the U.S. Department of Agriculture's Lesser Prairie-Chicken Initiative.

#### GREATER SAGE-GROUSE

The witness (Megan Maxwell, Consulting Biologist) who testified about the current Federal planning process to conserve greater sage-grouse (*Centrocercus urophasianus*) made numerous incorrect assertions and mischaracterized the science, law and purpose of the planning effort in her written testimony. We respond to her relevant contentions as follows.

**The National Technical Team's report on sage-grouse conservation measures represents "best available science" on sage-grouse.<sup>1</sup>**

In 2011, the Bureau of Land Management [BLM] convened a National Technical Team of sage-grouse experts and land managers to develop "A Report on National Greater Sage-grouse Conservation Measures" (NTT report). The report includes management recommendations for conserving and restoring sage-grouse and their habitat. BLM planning teams are considering the recommendations in draft management plans and sub-regional environmental impact statements [EISs] produced as part of the National Greater Sage-Grouse Planning Strategy, an unprecedented effort to update dozens of Federal land use plans with sage-grouse conservation measures.

The NTT report was created to provide the best available science to Federal planners (NTT 2011: 4) and the BLM has declared in court proceedings that the NTT report represents best available science on sage-grouse, as the witness acknowledged in her testimony (Maxwell testimony: 2). Nevertheless, she glibly asserts that the NTT report "does not in fact represent the 'Best Available Science'" on sage-grouse (Maxwell testimony: 3), which also disregards the deliberative process and quality of information used to develop the report. The NTT report was written by 23 sage-grouse experts and land managers. The team also consulted with additional agency and non-agency scientists. The report cites dozens of scientific references on sage-grouse and sagebrush steppe, including chapters from GREATER SAGE-GROUSE: ECOLOGY AND CONSERVATION OF A LANDSCAPE SPECIES AND ITS HABITATS, a sage-

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<sup>1</sup>Defenders of Wildlife has also identified additional agency and peer-reviewed science that augments and fills the gaps in conservation measures in the NTT report.

grouse monograph written by the top 38 sage-grouse and sagebrush experts in the world, edited by S. Knick and J. Connnelly (experts on sagebrush and sage-grouse ecology), technically edited by C. Braun (sage-grouse expert), published by Studies in Avian Biology (Cooper Ornithological Society) and printed by the University of California Press.

**The Bureau of Land Management's determination that the NTT report represents "best available science" on the species does not violate the National Environmental Policy Act.**

The witness contends that the BLM's declaration that the NTT report represents the "best available science" on sage-grouse violates the National Environmental Policy Act [NEPA] because it is "pre-decisional" for the national planning process for sage-grouse (Maxwell testimony: 2). Her assertion is without merit. NEPA prohibits Federal agencies, like BLM, from predetermining the *outcome* of a NEPA planning process such as the National Greater Sage-Grouse Planning Strategy—and BLM hasn't predetermined the outcome of its NEPA process by developing the NTT report—rather, the agency has developed conservation recommendations that it has committed to *consider* in at least one management alternative in draft management plans and sub-regional EISs that comprise the planning strategy.

The witness seems to acknowledge this point where she wrote "on December 27, 2011 the Department of the Interior [DOI] issued Instruction Memorandum [IM] 2012-044 to provide direction to BLM for considering sage-grouse conservation measures, identified in the NTT Report, during the land use planning/National Environmental Policy Act [NEPA] process which was already underway in accordance with the 2011 *National Greater Sage-Grouse Planning Strategy*. IM 2012-044 directs BLM to 'consider all applicable conservation measures when revising or amending its RMPs in Greater Sage Grouse habitat. The conservation measures developed by the NTT . . . must be considered and analyzed, as appropriate . . . and incorporated into at least one alternative in the land use planning process'" (Maxwell testimony: 1, emphasis original). It is not a NEPA violation for BLM to require planners to consider an alternative "as appropriate" in a planning document; it would be a NEPA violation only if BLM required that a certain alternative be selected during the planning process.

Additionally, the determination that the NTT report represents the "best available science" on sage-grouse was confirmed by a Federal court (as the witness acknowledged; Maxwell testimony: 2). NEPA does require agencies to use "high quality" information in planning (40 CFR § 1500.1(b)) and the BLM's own sensitive species policy commits the agency to "obtain and use the best available information deemed necessary to evaluate the status of special status species in areas affected by land use plans" (BLM Manual 6840.22A), and so it would be a violation for BLM *not* to consider the NTT report in its sage-grouse plans (*see also* BLM NEPA Handbook H-1790-1, 6.8.1.2 (January 2008), "Use the best available science to support NEPA analyses . . .").

Finally, while BLM has considered the NTT report recommendations in draft management plans and sub-regional EISs released to date, the agency has declined to adopt the recommendations as the preferred alternative in any of these plans.

**Anthropogenic disturbance threatens sage-grouse throughout their range.**

The witness, ignoring an exceptional amount of research on the subject, falsely contends that the NTT report "inappropriately assumes that anthropogenic disturbances are the primary threat to sage-grouse range-wide" (Maxwell testimony: 3). Multiple compendiums of science document the myriad effects of human activities and disturbance on sage-grouse, including Connnelly et al. (2004); Stiver et al. (2006); Knick and Connnelly (eds.) (2011) and, most recently, Manier et al. (2013) (also cited by the witness). The Service cited many of these references and dozens of other peer-reviewed scientific articles documenting the impacts of anthropogenic disturbance on sage-grouse in its "warranted, but precluded" determination in 2010 (75 Fed. Reg. 13910). The NTT report was developed in response to the Service's determination that human activities are threatening the species and that BLM's current regulatory framework for managing sage-grouse habitat was unclear, inconsistent, inadequate, and haphazardly applied.

**The NTT report recommends scientifically valid conservation measures to minimize the effects of anthropogenic disturbance on sage-grouse.**

The witness claims certain NTT report recommendations are not supported in scientific literature, including prescriptions to (1) retain 70 percent of vegetation cover in sagebrush steppe in sage-grouse habitat and (2) limit anthropogenic disturbance

to no more than 3 percent of land surface in priority habitat areas (Maxwell testimony: 5). In fact, scientific research does support these objectives, as well as the professional judgment of sage-grouse experts:

- *Retain 70 percent land cover in sagebrush steppe.* Connelly et al. (2000: 977, Table 3) recommend retaining >80 percent of sage-grouse breeding and winter habitat in desired habitat conditions. The NTT report, citing Aldridge et al. (2008), Doherty et al. (2010), Wisdom et al. (2011), recommends maintaining a minimum range of 50–70 percent of priority habitat areas in sagebrush cover. The Oregon sage-grouse conservation assessment and strategy is predicated on preserving/restoring ≥70 percent of sage-grouse habitat in advanced successional stages of sagebrush steppe (the remaining 30 percent to include degraded areas that might also be restored to habitat capable of supporting sage-grouse) (Hagen 2011: 74). Knick et al. (2013: 5–6) found that 79 percent of the area within 5 km of remaining active sage-grouse leks was in sagebrush cover.
- *Limit anthropogenic disturbance to ≤3 percent of land surface.* Knick et al. (2013) recently confirmed that remaining active sage-grouse leks were in landscapes with ≤3 percent anthropogenic surface disturbance within 5 km of the lek. In comparison, Copeland et al. (2013), modelling ≤5 percent surface disturbance, predicted that the higher rate would only slow and not stop population declines in Wyoming.

**NTT report recommendations to conserve sage-grouse habitat and limit the effects of anthropogenic disturbance on the species are not inconsistent.**

Both the witness and internal agency review of the draft NTT report questioned how the recommendation to retain 70 percent of vegetation cover as sagebrush steppe in priority sage-grouse habitat comports with the 3 percent cap on anthropogenic disturbance. The question was presented by BLM staff in an email, which the witness excerpted in her testimony:

Science says 30–50 percent in non-sagebrush cover is OK (see quote below), but the NTT Report says 3 percent in anthropogenic features is the NTT recommended maximum (see quote below).

Am I missing something, is it worded poorly, or is this a misapplication of professional judgment and science?

The report now makes this scientifically based assertion: Within priority habitat, a minimum range of 50–70 percent of the acreage in sagebrush cover is required for long-term sage-grouse persistence (Aldridge et al. 2008, Doherty et al. 2010, Wisdom et al. 2011).

That leaves an allowance of 30–50 percent in non-sagebrush cover. So how was the 3 percent maximum cap on surface anthropogenic features derived based on professional judgment? (see footnote) 3 percent is a long way from 30–50 percent[.]

(SGNTT emails, p. 235)

Both the witness and the BLM reviewer fail to understand the distinction between the recommendation that management retain 70 percent of sage-grouse habitat in sagebrush steppe and the recommended 3 percent cap on anthropogenic disturbance. Retaining 70 percent of vegetation in sagebrush steppe does not imply that the remaining 30 percent is not important to sage-grouse. In fact, those remaining areas should consist of other natural habitats (e.g., pinyon-juniper, aspen groves, riparian zones, early successional sagebrush steppe) or areas that could be restored to sagebrush steppe. Research also separately shows that within an entire landscape, sage-grouse can only tolerate 3 percent of discrete anthropogenic disturbance (e.g., drilling pads, mines, roads, wind turbines, utility corridors, etc.) that permanently eliminates sagebrush steppe and reduces the value of surrounding habitat to the species.

So the 70 percent retention standard and the 3 percent disturbance cap are not inconsistent, but together provide a baseline for managing the last best sage-grouse habitat in the West. A scientist offered this explanation in the same email communication excerpted above (which the witness failed to mention in her testimony):

Anthropogenic feature[s] are being limited to 3 percent to limit direct impacts to sagebrush habitat loss but more importantly impacts to sage grouse (direct or indirect) as a result of these features on the landscape.

The 50–70 percent sagebrush cover is really a minimum range for healthy habitats and that if the remaining habitat were all anthropogenic then the 50–70

percent would not be effective to sustainable [sic] SG populations. If the remaining 30–50 percent was in some other plant seral stage (recent burn or annual grassland) at least there is still habitat to be reclaimed or evolve over time back to a sagebrush ecosystem.

(SGNTT emails, p. 240)

**The purpose of the NTT report is to provide recommendations to Federal planners to consider in the National Greater Sage-Grouse Planning Strategy.**

The witness criticizes the NTT report for failing to consider current protections, including local sage-grouse conservation efforts, in its management prescriptions (Maxwell testimony: 7). However, such a criticism is misplaced because it conflates the NTT report, which provides scientific recommendations to conserve sage-grouse, with an Endangered Species Act listing determination, which evaluates the effectiveness of conservation measures to protect and recover an imperiled species. It is not the purpose of the NTT report to evaluate existing conservation measures for sage-grouse, although the report does include among its recommendations some prescriptions originally developed by States, local sage-grouse working groups and others.

The witness similarly notes that the NTT report fails to consider socio-economic conditions in its management recommendations (Maxwell testimony: 7), but, again, that is the purpose of other processes, not the NTT report. In this case, the NEPA planning strategy process is considering socio-economic issues related to sage-grouse conservation and the multitude of draft plans and sub-regional EISs produced to date include extensive analysis of these concerns.

**NTT report recommendations are a baseline for conserving sage-grouse and their habitat.**

The witness criticizes the NTT report for attempting to impose a “one-size-fits-all” approach on sage-grouse management plans in the West (Maxwell testimony: 4–5, 9, 10). This misconstrues the report, and the contention is otherwise mooted by the current planning process. Conservation measures in the NTT report are recommended to conserve and recover sage-grouse populations. The BLM is considering these prescriptions in draft management plans and sub-regional EISs as part of the national planning strategy to improve sage-grouse conservation on public lands. The prescriptions do not “predetermine” the outcome of the planning process, and considering them in draft plans is not “illegal,” as the witness otherwise suggests (Maxwell testimony: 8). In fact, while the BLM has analyzed the NTT report recommendations in many of the draft management plans and sub-regional EISs released as part of the planning process, *none* of the preferred alternatives in those plans would implement the NTT report prescriptions. Rather, the agency has created different preferred alternatives for each plan, based on local considerations and input, bucking the assertion that the BLM has adopted a one-size-fits-all approach to conserve sage-grouse.

As the witness recognized (Maxwell testimony: 1), the BLM has a unique opportunity to conserve sage-grouse on millions of acres of public lands. But the agency has also acknowledged that reversing long-term population declines will require a “new paradigm” (NTT 2011: 6) in land management that protects essential habitat and concentrates future land use and development in peripheral and non-habitat areas. The NTT report recommendations are intended to help the agency to achieve this goal.

Thank you for this opportunity to submit information to the record for the oversight hearing.

Sincerely,

MARK N. SALVO, DIRECTOR,  
*Federal Lands Conservation*

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